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Socioeconomics Technical Report

Support Document for the Draft Environmental Impact Statement
Anaconda Nevada Moly Project.

Lead Agency:

U.S. Department of the Interior
Bureau of Land Management
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FINAL REPORT

SOCIOECONOMIC TECHNICAL DISCIPLINE REPORT

THE ANACONDA COPPER COMPANY'S HALL PROJECT

Submitted to:
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PREFACE

The Anaconda Copper Company of Denver, Colorado, plans to develop an open pit molybdenum mine and flotation mill plant on privately owned land and public land on which the company has located mining claims under the general mining laws, approximately 18 miles north of the town of Tonopah in Nye County, Nevada. In order to supply power to the Anaconda project, Sierra Pacific Power Company of Reno, Nevada, has filed with the U.S. Bureau of Land Management (BLM) an application for a right-of-way to construct and operate a 230kv electric transmission line which would cross 86 miles of public land in the Big Smoky Valley in Nye and Lander Counties. Sierra Pacific's right-of-way application initiated BLM's environmental analysis process and the decision was made to prepare an Environmental Impact Statement (EIS) on the proposed transmission line and the Anaconda mine/mill complex. The EIS is being prepared on a contract basis by Environmental Research & Technology, Inc. (ERT), of Fort Collins, Colorado.

This report was prepared by ERT as a preliminary step in the EIS preparation process. The report provides detailed information on the socioeconomic conditions in the study area and discusses the potential impacts of the proposed project on these resources.

The Socioeconomics Report is one of a series of ten technical reports prepared by ERT as background and documentary material for the EIS. The Socioeconomics Report was prepared by Abt Associates Inc., under subcontract to ERT. Each report represents the results of field and literature studies in the affected environments and results of impact analyses. The technical reports are intended as background documents and information in them is, in many cases, considerably more detailed than will be included in the EIS.

Chapter 1, "Alternatives Including the Proposed Action," can be found in the DEIS which is on file with copies of the ten technical reports at the following locations: BLM Offices in Washington, D.C.; Reno; Battle Mountain; Carson City, Elko; Ely; Las Vegas; and Winnemucca, Nevada. The following public libraries will also receive copies: the Churchill Public Library, Fallon; Clark County Library, Las Vegas; the Elko County Library, Elko; the Esmeralda County Library, Goldfield; the Eureka County Library, Eureka; the Lander County Library, Battle Mountain; the Mineral County Library, Hawthorne; the Nevada State Library, Carson City; the Nye County Library, Tonopah; the Washoe County Library, Reno; and the White Pine County Library, Ely. Draft EISs will also be sent to the University of Nevada Libraries in Reno and Las Vegas.

CHAPTER 1

ALTERNATIVES INCLUDING THE PROPOSED ACTION

[Refer to the Draft Environmental Impact Statement which is on file with the Technical Reports]

CHAPTER 2

AFFECTED ENVIRONMENT

Introduction

The purpose of this chapter is to describe the socioeconomic environment of the study area as it is now and would be in the future without the proposed action, assuming a continuation of current trends. The future environment without the project constitutes the "baseline" against which the environment with the proposed action was compared to determine the effects of the proposed action. The period 1979-2001 was used for this analysis. This coincides with the length of the construction and full production phases of the mine/mill. The major factors considered in describing the socioeconomic environment include population, economic base, community facilities and services, and local attitudes and life-styles. Baseline descriptions are also provided for land use, recreation, and transportation.

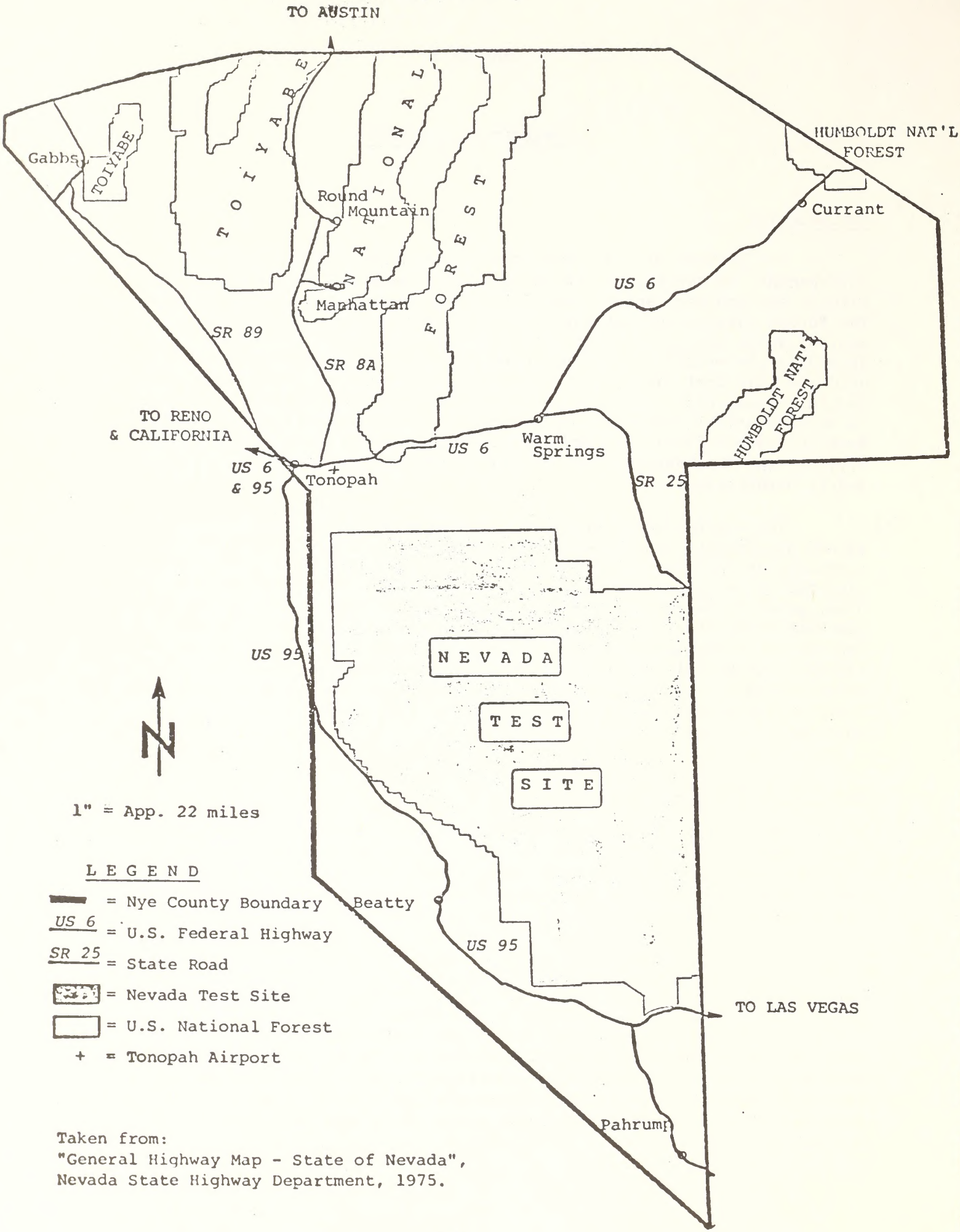
The socioeconomic study area encompasses Nye County, Nevada. Within Nye County, primary emphasis was given to Tonopah, the largest community in the county and the county seat (see Figure 1). Tonopah is also the major population center in the proximity of the mine/mill site. Other areas included in the analysis are the communities of Round Mountain and Manhattan, the Big Smoky Valley, the mine/mill site, and the proposed alternative transmission line corridors. These localities will be considered only briefly because of the relatively insignificant socioeconomic effects expected as a result of the proposed action. Other communities and areas in Nye County, such as Beatty and the Pahrump Valley, are mentioned only in the context of the general discussion of the study area.

Historical Perspective

The modern period of development in the study area began in the early 1860s, with the advent of mining for silver and non-metallics. By 1864 there was sufficient population to warrant creation of Nye County, named after the Territorial Governor, James W. Nye, with Belmont, the principal settlement in the area, originally designated as the county seat.

The community of Tonopah was first settled in 1901 by a group of prospectors led by James Butler, who discovered silver, gold, and fine grade black quartz in the area in 1900. An estimated $4 million in silver ore was extracted in the first year of production alone, and by 1902 the thriving settlement known as "Butler City" had a population of 1,200. Shortly thereafter, the name was changed to Tonopah, a name given by the Shoshone Indians to a small desert shrub found in the area.. By 1907 the town had 10,000 residents and become the county seat, having outgrown Belmont.1/

Study Area Map



Taken from:
"General Highway Map - State of Nevada",
Nevada State Highway Department, 1975.

In this century, mining has continued as the primary economic activity in the county. Nye County was the nation's largest producer of magnesium for military use during World War II. Ranching, which developed early in the century, also continues to be important, with numerous livestock ranches in operation. More recently, the Federal government has contributed to the county's economic growth.

Population

From 1920 to 1950 the population of Nye County declined from 6,504 to 3,101. Since 1950 the population increased steadily to 5,599 in 1970.2/ According to a special census taken in 1979, the current population is 7,994, nearly a 43 percent increase over the 1970 population.3/ Most of the population growth in the county has occurred in the Pahrump Valley and Beatty areas. Although the population of the town of Tonopah has also increased consistently since 1950, it has not grown as rapidly as that of the county. As a result, Tonopah's share of the county population decreased from 44 percent in 1950 to an estimated 26.3 percent in 1979. These population trends are shown in Figure 2.

An analysis of the 1970 - 1979 population increase in Nye County was done to determine the contributions of natural increase and migration to the total change. Data obtained from the Nevada Department of Vital Statistics (NDVS) were used for this analysis.4/ Total net births for the period were subtracted from the total change in population, as established by the census population figures, to derive net migration estimates. The components of change, i.e., factors causing population increases or decreases, show that natural increase accounted for only about 17 percent of the total growth, while 83 percent can be attributed to net in-migration.

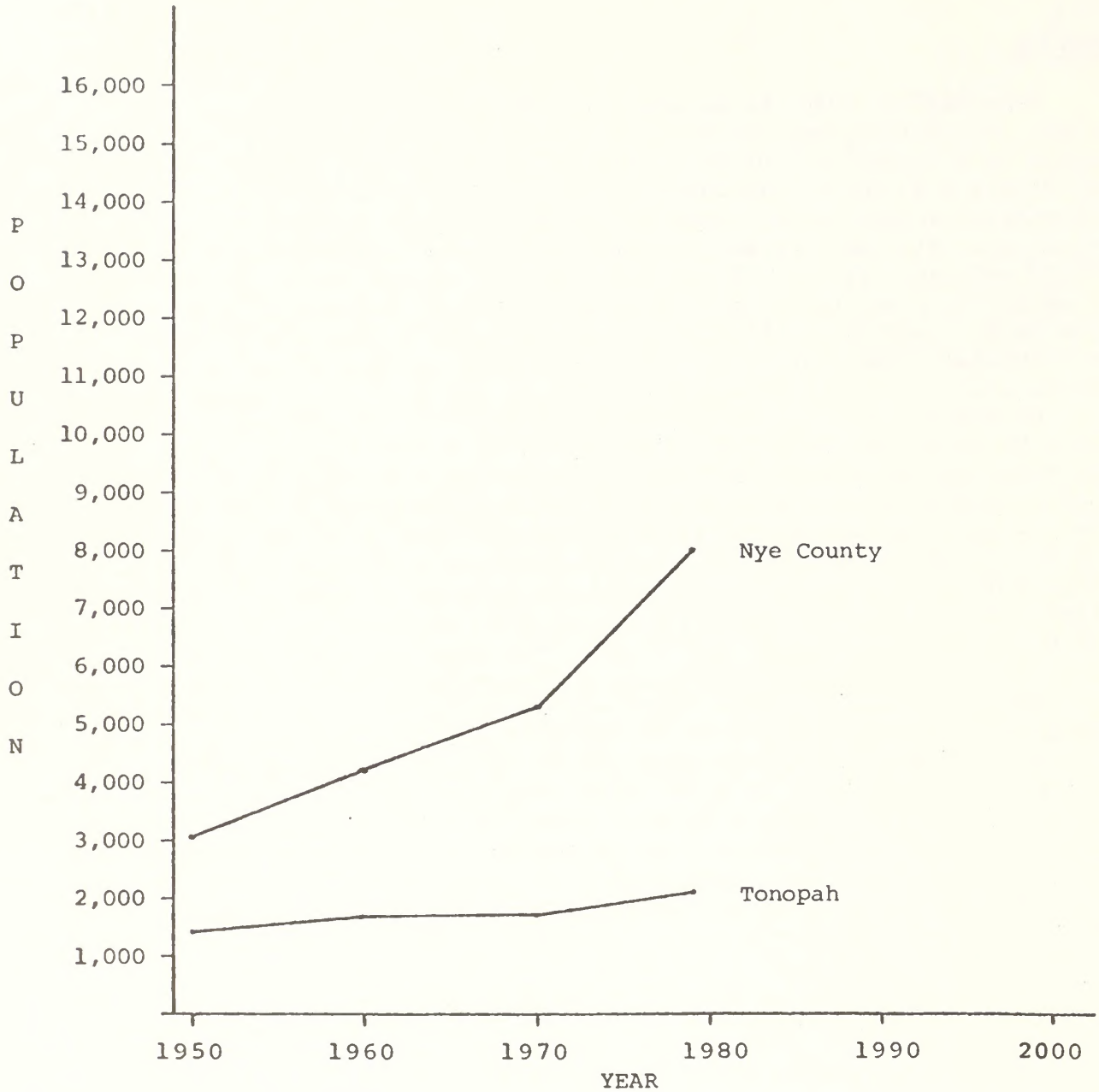
Another indication that the composition of the Nye County population is changing is shown in the age/sex population pyramids in Figure 3. The 1979 pyramid was derived by multiplying the estimated percentage of the total population in various age/sex groups times the 1979 census population figure.5/ These pyramids indicate that county population is not only expanding, but is also expansive, that is, the largest percentage of people are either children or young people of childbearing age. Thus, there will be a natural tendency for the population to increase over time should the young people remain in the county as they reach child-bearing age. The pyramids also show that the percentage of females in the total county population has increased between 1970 and 1979.

According to 1970 census data, distribution of the Nye County population by race/ethnicity indicates whites comprised 5,297 (94.6 percent) of the total population. American Indians numbered 227 (4.1 percent, blacks numbered 41 (0.7 percent) and 34 (0.6 percent) were counted and listed as "other."2/

The Nye County and Tonopah populations were projected based on the assumption that recent population trends will continue. Three alternative trends were considered as potential baselines for future population growth in the absence of the proposed action. These trends are illustrated in Figure 4. The "high" trend line is based on a continuation of the growth

FIGURE 2

Population of Nye County and Tonopah
Selected Years



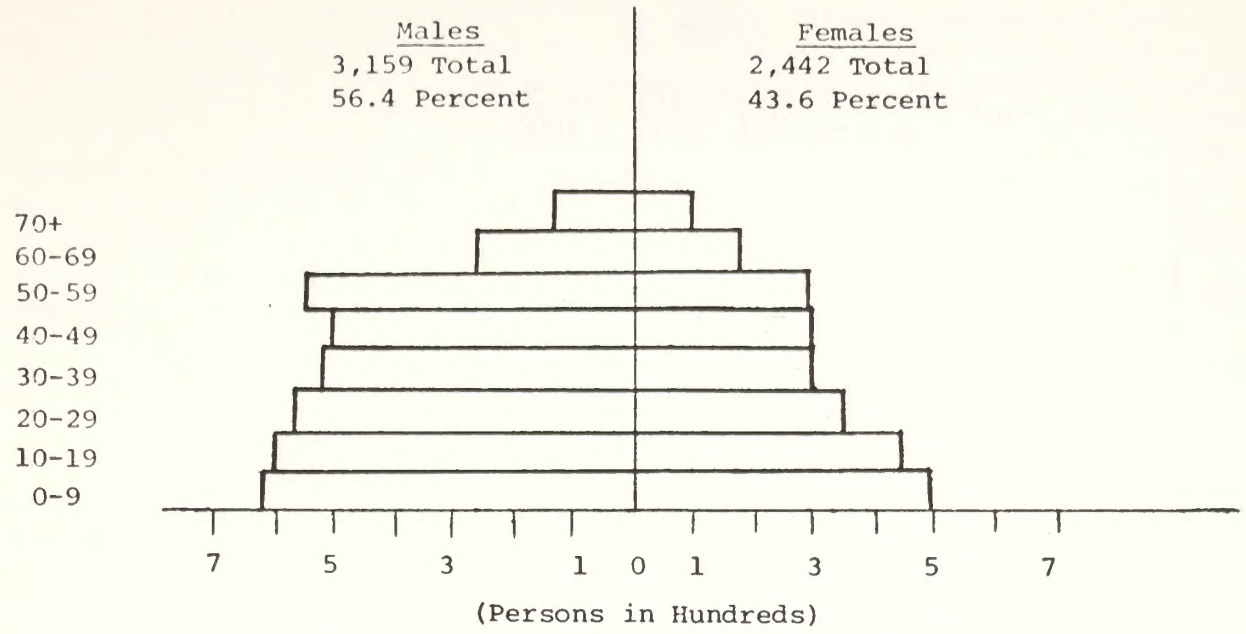
	1950	1960	1970	1979
Nye County	3,101	4,374	5,599	7,994
Tonopah	1,375	1,679	1,716	2,100 *

Source: U.S. Census Bureau, and (*) Abt Associates Inc., 1979.

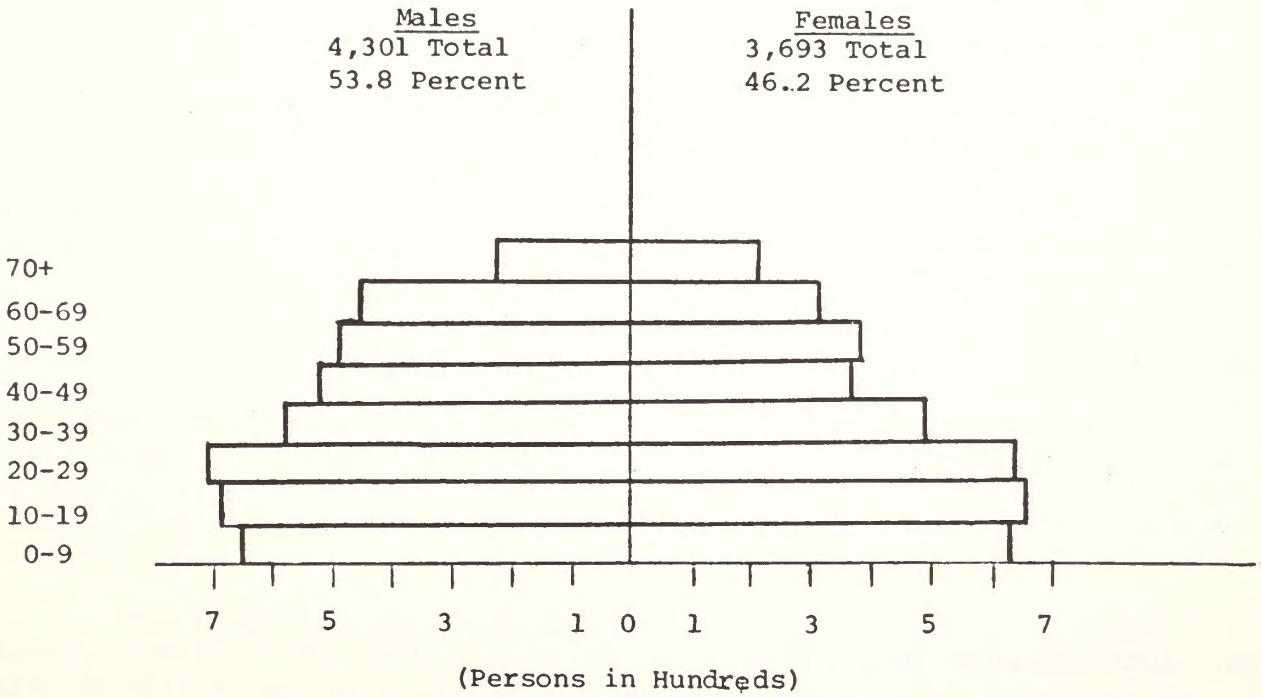
FIGURE 3

Nye County Population Pyramids

1970



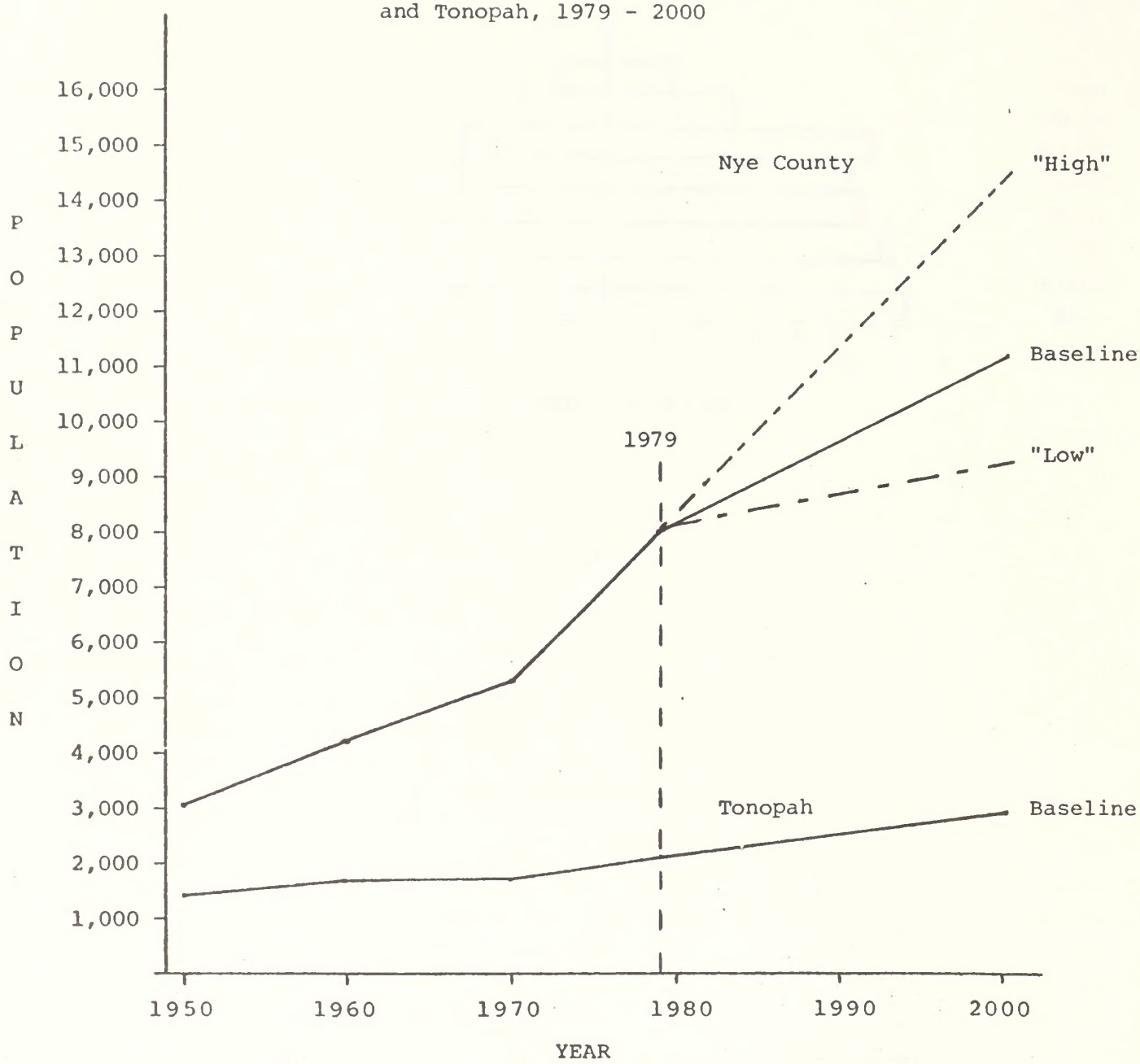
1979



Source: U.S. Census Bureau, and Nevada State Planning Coodinator's Office

FIGURE 4

Population Trends for Nye County
and Tonopah, 1979 - 2000



Source: Abt Associates Inc., 1979

which occurred between 1970 and 1979. An assumed population growth of 10 percent between 1979 and 1990 was used to derive the "low" trend line. The trend chosen for the "baseline" for the future without the project was estimated using population data for the period 1950-1979. This trend was thought to provide a more realistic representation of the long-term stabilized growth which has been occurring in Nye County than either of the other two trends. The relationship between these trends is that the "low" trend assumes a population growth approximately one-half that of the "baseline," which is in turn about one-half that of the "high" trend. The population of the town of Tonopah was assumed to remain constant at approximately 26.3 percent of the total Nye County population between 1980 and 2000. Projected population estimates for Nye County and Tonopah are presented in Table 1. The baseline population estimates show the population of Nye County going from 7,994 in 1980 to 11,580 in 2001, and the population of Tonopah going from 2,100 in 1980 to 3,045 in 2001.

Economic Base

An analysis of the economic base of Nye County indicates that the mining, agriculture, government, and tourist-related industries form the foundation of the local economy. Following the arguments of economic base theory, these basic industries produce goods for export and provide the employment and income on which the balance of the economy depends. This dependency stems from the direct demands of these industries for goods and services, and from the indirect demands of the employees in the basic industries for additional goods and services. These demands are met by non-basic, or support industries which supply the desired goods and services, which are generally consumed locally. Employees of the support industries also have demands for goods and services which contribute to the overall level of demand in the local economy. Thus, the basic industries are the foundation of a local economy and support the entire economy since it generates the demands and incomes which support the non-basic industries.

For this study, a location quotient technique (see Chapter 6) was used to analyze the economic base of Nye County. Location quotient analysis uses a ratio to compare the proportion of local employment in a given industry to the proportion of national employment in that industry. If the ratio is greater than one, i.e., the local industry has relatively more employment in that sector than does the nation as a whole, it is considered to be basic. If the ratio is less than one the industry is considered to be non-basic, and if the ratio is approximately equal to one the industry is neither basic nor non-basic. Table 2 presents the results of the analysis for Nye County. In several cases the employment in an industry was allocated between both the basic and non-basic categories, if the location quotient was fairly close to one.

The results of the analysis are useful for two reasons. First, having identified the basic industries, economic base theory would argue that it will be necessary for growth to occur in the basic industries if the Nye County economy is to expand and prosper. According to data

Table 1

TRENDED BASELINE POPULATION
NYE COUNTY AND TONOPAH

Year	*Nye County*	*Tonopah*
1979	7,994	2,100
1980	8,160	2,145
1981	8,325	2,190
1982	8,490	2,230
1983	8,645	2,275
1988	9,460	2,490
1993	10,275	2,700
1998	11,090	2,915
2001	11,580	3,045

Source: Abt Associates Inc., 1979.

Table 2

LOCATION QUOTIENTS FOR NYE COUNTY AND BASIC/NONBASIC ALLOCATIONS

Sector	*1976 Employment*	*Location Quotient*	*Allocation of Employment*	
			Basic	*Nonbasic*
Agriculture	175	1.35	175	0
Mining	510	21.45	510	0
Construction	90	.82	0	90
Manufacturing	50	.09	0	50
Trans.,Pub.Util., and Comm.	100	.72	0	100
Trade	310	.57	0	310
Fin.,Ins., and Real Estate	140	1.06	Neither[a]	Neither[a]
Services	777	1.15	102	675
State and Local Government	506	1.35	131	375
Federal Government	225	1.37	225	0
Totals	2,883	N.A.	1,143	1,600

[a]Considered to be self-sufficient

N. A. - Not Applicable

Sources: Abt Associates Inc., 1979.
U.S. Department of Commerce, Bureau of Economic Analysis, 1977.
Nevada Employment Security Department, 1976.

presented later in this report, this has in fact occurred in Nye County. The second use for the results of the above analysis is that it allows the estimation of the total change in employment which would result from a change in local basic employment. This procedure will be used later in this report.

Employment and Income

The local economy is described in this section in terms of employment, income and earnings measures. Comparing these measures over time, or to the same measures for the state or nation, provides an indication of the composition and strength of the Nye County economy. Employment in the mining, tourist, and service industries, and government sectors increased significantly from 1970 to 1976. Together with a stable agriculture sector, these sectors form the foundation of the county economy. During the same period, 1970 to 1976, employment in the trade and construction sectors decreased significantly. Employment data by major sector for 1970 and 1976 are given in Table 3.

A common indicator of the strength of a local economy is the average unemployment rate. The rate expresses the percentage of the labor force which is unemployed and actively seeking employment. Lower rates translate to fewer unemployed persons and thus to a healthier economy. Comparative data for Nye County, the State of Nevada, and the nation as a whole are given in Table 4. The table shows that unemployment in Nye County has been consistently lower than for both the state and the nation.

Table 4

UNEMPLOYMENT RATES FOR SELECTED YEARS[a]

	1976	1977	1978	1979[b]
Nye County	4.7%	5.1%	2.1%	2.4%
Nevada	9.0%	7.0%	4.5%	5.7%
United States	7.7%	7.0%	6.0%	5.7%

[a]Seasonally Adjusted.
[b]Rate for July, 1979.

Sources: Nevada Employment Security Department, Nevada and County Labor Force Summaries, 1976, 1977, 1978, and 1979.

Another indicator of regional economic welfare is the amount of per capita personal income generated in the region. Data on absolute per capita income for 1974-1977 (Table 5) show that while Nye County per capita

Table 3

EMPLOYMENT BY MAJOR SECTOR, NYE COUNTY

Sector	1970 Employment	1976 Employment
Agriculture	156	175
Mining	325	510
Construction	406	90
Manufacturing	61	40
T.P.U.C.[a]	132	100
Trade	408	310
F.I.R.E.[b]	40	140
Services[c]	563	777[d]
Government	434	731
TOTAL	2,525	2,833

[a]Transportation, Public Utilities, and Communications.

[b]Finance, Insurance, and Real Estate.

[c]Includes nonfarm proprietors.

[d]Does not include 2,800 employees commuting from Clark County to the Nevada Test Site.

Sources: U.S. Department of Commerce, Bureau of the Census, 1970.
U.S. Department of Commerce, Bureau of Economic Analysis, 1977.
Nevada Employment Security Department, 1976.

income is increasing, it continues to lag behind both national and state figures for the same period, while the Nevada state figures continue at a level above the national figures. During the same period, total personal income in Nye County increased from approximately $24.8 million in 1974 to $34.6 million in 1977.

Table 5

ESTIMATED PER CAPITA PERSONAL INCOME

	1974	1975	1976	1977
Nye County	$4,817	$5,097	$5,356	$5,767
Nevada	6,067	6,595	7,162	7,980
United States	5,428	5,852	6,399	7,026

Source: Nevada Employment Security Department, Area Labor Review--Balance of State 1978, 1978 and U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, April 1979.

The effects of continued growth in employment can also be assessed by reviewing the gross average annual earnings by major sector. The 1976 figures for Nevada are shown in Table 6. From these figures it can be seen that employment in the basic industries not only generate higher levels of income in the local economy, but through their support of the other sectors they actually result in additional incomes being generated. The wage differentials among sectors also demonstrates why certain sectors have problems attracting and maintaining employees when economic growth occurs; these sectors can not compete for scarce employees. This is in fact already occurring in Nye County, not only as a result of low wages, but also because of a lack of housing and Nye County's isolated, rural nature.6/7/

The Nye County economy is expected to remain strong, with limited but steady growth. Most of the growth is expected to be the result of continued mineral and oil and gas exploration and development. Several mining projects have been identified which are assessing the feasibility of beginning or expanding operations in the region, thereby increasing employment in the mining sector. Unfortunately these projects do not yet have definite timetables or employment projections associated with their operation, and therefore a more definitive statement of timing and the effects of the projects is not possible at this time. This same lack of specific data necessitated the use of the assumption of a continuation of trends to define the baseline.

The baseline assumptions project continued growth of the Nye County economy, resulting in a low unemployment rate and increased personal income. However, if a major project or several smaller projects start up concurrently or in rapid sequence, the current county population would not

Table 6

1976 AVERAGE ANNUAL EARNINGS BY MAJOR SECTOR
STATE OF NEVADA

Sector	Average Earnings[a]
Mining	$14,440
Consturction	12,890
Manufacturing	10,860
T.P.U.C.[b]	13,370
Trade	6,930
F.I.R.E.[c]	9,640
Services[d]	9,740
State and Local Government[e]	9,520
Federal Government	13,630

[a]Earnings rounded to the nearest 10 dollars.

[b]Transportation, Public Utilities, and Communications.

[c]Finance, Insurance, and Real Estate.

[d]Includes agricultural services and establishments not elsewhere classified.

[e]Nye County only.

Source: Nevada Employment Security Department, Area Labor Review--Balance of State, 1978, 1978.

be able to supply the needed labor, which would lead to in-migration and population increases. Such increases could lead to a pattern of growth which deviates from baseline population trends, however, the long-term growth pattern will approximate the baseline trend.

Political Structure

Nye County is under the direction of a three-member board of county commissioners elected at-large for overlapping four-year terms. The commissioners are responsible for providing facilities and services throughout the county, including the unincorporated towns of Pahrump, Lathrop Wells, Mercury, Beatty, Tonopah, Manhattan, Round Mountain, and Currant. The town of Gabbs is the only incorporated community in Nye County.8/. Five towns have advisory boards: Beatty, Pahrump, Round Mountain, Manhattan, and Tonopah. The advisory boards consist of local residents elected at town meetings who are responsible for conveying town concerns and needs to the county commissioners, who in turn are responsible for taking an appropriate course of action. In addition to the town advisory boards, other boards and commissions in the county include the following:

...Library boards in Beatty, Pahrump, Tonopah, and Round Mountain (one is being formed in Armagosa)

...Nye County School Board

...Hospital Board

...Armagosa Valley Improvement Association

...Beatty Water and Sewer District

...Beatty General Improvement District

...County Parks and Recreation Board

...Tonopah Convention Center

...County General Obligation Bond Commission

...County Board of Equalization

...County Planning Board

...Tonopah Conservation District (Big Smoky Valley)8/

Elected County officials include the clerk, recorder-auditor, assessor, district attorney, treasurer, sheriff, and justice of the peace. Appointed officials in the study area include the assistant district attorney, assistant road superintendent, civil defense director, convention center director, county administrator, county health officer, county road superintendent, court reporter, deputy health officer, Tonopah fire chief,

librarian, planning director, Tonopah public utilities superintendent, and undersheriff. The county administrator is responsible for the day-to-day management of the county.8/

The town of Tonopah, the county seat, is unincorporated and has a taxing district separate from that of the county. A town advisory council was recreated in 1979 to formulate and present town issues and needs to the county commissioners. The five-member council is elected for two-year terms from the community at-large. The council holds public meeting monthly and represents the town before the county commissioners. The council prepares a town budget which the county commissioners either accept as is, or modify before incorporating it into the total county budget. The only services provided by the Tonopah community are a paid professional fire department; the Tonopah Public Utilities Company, which provides water and wastewater services; and parks and recreation facilities and services.9/

Financial Resources

Indicators of financial well-being show Nye County to be financially sound. The county's assessed valuation has increased continually since 1970 (see Table 7), expenditures have stabilized, and outstanding bonded debt is well within limits. As reported in the Nye County Master Plan, the fiscal 1969 revenues were $4,463,405, and expenditures were $3,618,014. In the 1979-80 budget, projected revenues total $6,304,734 and projected expenditures total $5,733,995, reflecting an increase of 41.3 percent in revenues and 58.5 percent increase in expenditures over the 1969 figures. County funds support the basic facilities and services, such as the sheriff's department, roads and bridges, a county hospital, and administrative functions such as the county clerk, treasurer, assessor, and district attorney. Included in the county's budget is the funding necessary for the unincorporated towns within the county. The 1979-80 expenditures budget, broken down by general categories is presented below.

Expenditure Category	Amounts	Percent of Total
General	$2,588,027	45.1
Capital Projects	801,522	14.0
Agriculture Extension	19,359	.3
Health/Welfare	163,876	2.9
Hospital	1,364,699	23.8
Roads	763,132	13.3
Juvenile Probation	33,380	.6
Total	$5,733,995	100.0

Table 7

NYE COUNTY ASSESSED VALUATION
1970-71 TO 1979-80

Fiscal Year	Assessed Valuation	Percent Change	Local Government Unit Rate/$100 of Assessed Valuation
1970-71	$ 24,772,000		1.70
		12.6%	
1971-72	27,915,000		2.37
		14.0%	
1972-73	31,825,000		2.37
		41.5%	
1973-74	45,032,000		1.55
		7.9%	
1974-75	48,600,000		1.65
		20.3%	
1975-76	58,490,000		1.57
		6.7%	
1976-77	62,414,000		1.75
		27.4%	
1977-78	79,518,091		1.57
		13.1%	
1978-79	89,969,000		1.66
		16.2%	
1979-80	104,573,000		1.63

Source: Nevada Tax Commission, Local Government Red Book: Ad Valorem Tax Rates, Budget Summaries for Nevada Local Governments, Fiscal Years 1970-71 through 1979-80.

In 1979-80, 36 percent of the total budget was allocated for salaries, wages, and benefits; 34 percent for services, supplies, and other operating expenses; 20 percent for capital outlays; and 10 percent for reserves and balances.10/

Revenue estimates for 1979-80 indicate a relatively broad base in which property taxes account for slightly more than one-quarter of county financial resources.10/ Fifty-eight percent of the county's revenues will be derived from revenue sources other than property tax, e.g., licenses and fees and state and Federal revenues and grants. Consequently, county finances are not overly dependent upon any one source. The 1979-80 revenue budget is presented below.

Revenue Source	Amount	Percent of Total
Opening Fund Balance	$ 925,850	16
Non-Property Tax Revenues	3,298,135	58
Property Tax	$1,510,010	26
Total Revenues	$5,733,995	100

The county's bonded debt capacity is legally limited to 10 percent of its total assessed valuation, or $10,457,300 for fiscal year 1979-80. The outstanding debt, as of July 1, 1979, is $820,165, or 7.8 percent of the level permitted.10/

Baseline population growth in the county would affect all aspects of county financial resources. Expenditures would increase as the county expands its services to maintain the current level of service for a larger population base. Assessed valuation would increase as a result of increased residential, commercial, and industrial development, providing an increased revenue base to support the additional expenditures. However, since property taxes based upon increased assessed valuation only account for a fraction of the total budget, the increased revenues would not totally offset the increased expenditures. The county's bonded indebtedness could increase if any major capital improvement programs are undertaken, which appears unlikely. Even then, bonded debt levels would only increase if the county was unable to secure state and federal grants for these programs. Such grants are currently being used to finance improvements at the Nye County airport and will be used for Tonopah's new wastewater treatment plant.

A major factor influencing the financial status of the county in the future is a recently enacted state law which imposes limitations on local government spending and taxation, and increases thereof (see Chapter 6 for further details regarding this legislation). The law imposes a maximum combined total taxing rate of $3.64 per $100 of assessed valuation. Under certain conditions, the rate can be increased another $0.30 per $100,

with the additional levy only being available to the local school districts. This is the maximum rate which any individual taxpayer can pay to all taxing jurisdictions, i.e., state, school, and local, and includes bond repayment programs. Therefore, annual revenue increases will be limited by the increases in assessed valuation. At the same time, expenditures are limited to a base figure which is adjusted annually to account for the previous year's population changes and changes in the consumer price index, i.e., inflation. While this process allows local government to alter their budgets to reflect changes, the process does create a response lag since it is based on the previous years' changes. In a rapidly changing environment, this could create problems. However, these limitations and restrictions would not present any significant financial problems for Nye County given the steady population growth expected for the baseline.

The town of Tonopah, although an unincorporated community, formulates a budget that is approved by the county commissioners. However, since the county provides most of public services to the town, the budget is fairly small. General fund expenditures for 1979-80 increased by only $100 over the previous year. In 1979-80, the town appropriated funds for the following activities:

Expenditure Category	Amount	Percent of Total
Fire Department	$ 77,500	73
Library	3,700	3
Building and Grounds	5,300	5
Other	20,000	19
Total	$106,500	100

As shown above, fire services absorbed 73 percent of the town's resources, reflecting the high priority the town places on fire protection services. The town of Tonopah receives its revenues from a number of sources, with property taxes being the primary source. Table 8 presents the assessed valuation for the Tonopah taxing district from 1970-71 to 1979-80 and the unit rates applied to the assessed valuation to produce the towns revenues. These data indicate that the assessed valuation increased steadily over the period, while the unit rate fluctuated considerably. This may reflect the town's ability to use other sources of funding, or a change in the level of services provided by the town.

Tonopah's revenues for fiscal year 1979-80 general fund are listed below:

Table 8

TONOPAH ASSESSED VALUATION
1970-71 TO 1979-80

Fiscal Year	*Assessed Valuation*	*Percent Change*	*Local Government Unit Rate/$100 of Assessed Valuation*
1970-71	$ 4,062,581		1.10
		9.6%	
1971-72	4,450,562		.50
		5.9%	
1972-73	4,715,106		.50
		4.2%	
1973-74	4,915,121		1.00
		4.8%	
1974-75	5,150,732		1.05
		7.9%	
1975-76	5,556,997		1.04
		7.7%	
1976-77	5,984,715		.98
		2.8%	
1977-78	6,150,101		.83
		3.6%	
1978-79	6,373,606		1.19
		1.4%	
1979-80	6,464,384		1.30

Sources: Nevada Tax Commission, Local Government Red Book: Ad Valorem Tax Rates, Budget Summaries for Nevada Local Governments, Fiscal Years 1970-71 through 1979-80, and Town of Tonopah, Nevada, Tonopah Town Budget 1979-80, 1979.

Revenue Sources	Amount	Percent of Total
Property Taxes	$ 68,520	61.3
Licenses	18,000	16.1
Fines and fees	7,000	6.3
Privilege Tax	4,500	4.0
Miscellaneous	2,680	2.4
Grants	10,000	9.0
Opening Fund Balance	917	0.9
Total	$111,617	100.0

In contrast to Nye County, Tonopah is very dependent upon property taxes for its revenues, such taxes accounting for 61.3 percent of its total 1979-80 revenues.

As of July 1, 1979, Tonopah had an outstanding debt of $53,784 that included bond payments for a fire station, the convention center, and two utility pipelines. The town's debt limit is 15 percent of assessed valuation, or $969,658, which is well above the existing outstanding principal of $53,784.9/

In addition to the general fund, several special funds are also included in the town's overall budget. These funds are self-sustaining in that the revenues produced by each entity are used to meet the operating costs and other expenditures for each facility. In some cases, such as water and wastewater services provided by the Tonopah Public Utilities Company, as costs increase, fees are adjusted to meet the need for increased revenues. These budgets are listed below for 19790-80.

Convention Center	$ 46,483
Swimming Pool and Park	24,562
Tonopah Public Utilities Company	264,000

As shown in Table 1, Tonopah's population will increase moderately under the baseline. Since the town provides only limited services and facilities, no significant changes in the town's financial status is expected. Expenditures, bonded indebtedness, and assessed valuation will increase as the population grows. The town can also seek additional

funding from the county if needed. However, the same spending and taxing restrictions which were described for the county, also apply to the town. For example, taxable property in the Tonopah taxing district is currently taxed at the following rates, per $100 of assessed value; $1.30 by the town, $1.63 by the county, $0.45 by the school district, and $0.21 by other jurisdictions, for a total of $3.59 per $100 of assessed value. Within the state-imposed limit of $3.64 per $100, only $0.05 remains to meet future demands, including revenues to fund additional bonded debt. Therefore, the town's ability to contemplate or undertake an expansion of services, beyond that justified by increased population or inflation is legally limited, if not financially.

Schools

The Nye County School District provides public education, kindergarten through twelfth grade, for most of the county residents and some residents from other counties. A seven-member school board is responsible for establishing district policies and for appointing a superintendent, who is responsible for day-to-day operations. The district operates schools in Amargosa Valley, Beatty, Duckwater, Gabbs, Pahrump, Round Mountain, Tonopah, and a rural school in Fallini. Only the Tonopah schools will be analyzed in detail, since enrollment increases from the proposed action would be reflected in that enrollment area. The three factors considered in the analysis are facility capacity, student/teacher ratios, and financial resources, all of which are directly related to enrollment.

School enrollment for Tonopah and the Nye County School District are shown in Table 9. Total district enrollment has grown at an annual rate of 6.8 percent between 1974-75 and 1979-80. During the same period, Tonopah enrollment grew at a lower rate of 3.3 percent. Although not shown, enrollment growth has been most rapid in the Pahrump area, the largest enrollment area in the district, in which enrollment has nearly doubled since 1974-75.11/

TABLE 9

ENROLLMENT HISTORY, NYE COUNTY SCHOOL DISTRICT AND TONOPAH, 1974-1980

School	1974/75	1975/76	1976/77	1977/78	1978/79a	1979/80a	Change (%)
Tonopah	424	421	410	402	470	492	+16
Total District Enrollment	1,338	1,405	1,381	1,455	1,698	1,752	+31

[a]End of the first month of school.

Source: Nye County School District, Bond Issue Information, November 1979.

Schools in Tonopah are located on the same site and are considered as a campus. One building is used solely for elementary education while two buildings house grades seven through twelve. Other buildings on the site include a gymnasium/music building, a shop, and an administration building. An athletic field is located nearby with a football field and track. The superintendent indicated that the current enrollment of 493 students is approximately 78 percent of the facility's overall capacity of about 630 students. However, some classes such as special education, although small, are held in standard classroom space thereby reducing the effective capacity somewhat.6/

The number of teachers budgeted for the 1979-80 school year and the resulting teacher/student ratios for Tonopah and the total district are 24 and 1:21, and 92 and 1:19, respectively. The teacher/student ratio bettered the ratio of one teacher per 20 students the district had planned for 1979-80, as well as the minimum state standard of one teacher per 25 students. Teacher/student ratios of some programs, e.g., special education and bilingual classes, are lower than the district averages.12/

The district superintendent indicated that the district has had some problems recruiting teachers, primarily due to a shortage of housing. It has attempted to offset this with higher salary levels. He expected that this problem could continue unless baseline growth in Nye County promotes the development of additional housing, easing the shortage.6/

Financial resources in the district reflect the major role of the state in funding public education. The 1979-80 budget indicates that 71 percent of the total revenues will be received from the state, 21 percent from the county, and 8 percent from other sources. The heavy state support of education was made necessary by the tax limitations imposed by the legislature which reduced the maximum levy which school districts can assess to $0.50 per $100 of assessed valuation from the previous limit of $1.50 per $100. The state support is intended to offset the resulting reduction in property tax revenue (see Chapter 6). The district also receives revenues from property taxes, using the same assessed valuation base as Nye County (see Table 7). For 1979-80 the district has assessed a unit rate for property tax purposes of .45/$100 compared with a maximum limit of .50/$100. The average expenditure per student planned in 1979-80 is $2,237.80 compared with $2,344 in 1977-78.12/

The district relies on general obligation bonds to finance major capital improvements. The district has three outstanding issues totalling an outstanding balance of $2,345,000. This represents 11.2 percent of the district's total debt capacity of $20,914,000.12/ The district had a $2.5 million bond issue on a ballot in November, but it was defeated. Had it passed, it would have provided for improvements to schools in Amargosa Valley, Pahrump, and Tonopah.

Baseline enrollment projections for the district indicate an increasing enrollment that will reach approximately 2,500 students by 2000-2001 (see Table 10). Tonopah enrollment is expected to reach 697 students, reflecting growth at about half the district's rate. Based on

Table 10

CURRENT AND BASELINE ENROLLMENTS
NYE COUNTY SCHOOL DISTRICT

	1974-75	*1979-80*	*1980-81*	*1981-82*	*1982-83*	*1987-88*	*1992-93*	*1997-98*	*2000-2001*
Total	1338[1]	1794[2]	1790[3]	1825[3]	1890[3]	2,035[3]	2,210[3]	2,385[3]	2,490[3]
Tonopah									
K-6	209	228	235	240	244	268	291	314	326
7-12	215	265	266	271	276	302	329	354	369
	424[1]	493[2]	501[3]	511[3]	520[3]	570[3]	620[3]	668[3]	697[3]

Sources: [1]Nye County School District. Bond Issue Information. N.D.

[2]Nye County School District. Monthly Enrollment Report for Nye County School District. August 27, 1979, to September 21, 1979.

[3]Abt Associates Inc. 1980.

these projections, Tonopah's school facilities will be at capacity in the early 1990s and will fall short of meeting enrollment needs by approximately 70 spaces in 2000-2001. Assuming that the district will meet the minimum state standard of one teacher per 25 students, the 2000-2001 staffing requirements will be 123 teachers for the district and 34 for Tonopah. These requirements reflect increases over the current levels of 31 and 10 teachers, respectively. As previously indicated, the district may encounter some problems recruiting this number of teachers.

As enrollment increases through 2001, the school district will face increased operating and maintenance expenses. Since state revenue contributions constitute most of the school district's budget, it is expected that the district will be able to meet these increased costs. However, the school district's increases in expenditures are restricted by the recently enacted legislation which limits the increase to that justified by inflation and changes in enrollment. The school district does have one advantage over most agencies in that if its enrollment exceeds the projection by more than 3.0 percent, or if enrollments increase over 3.0 percent during a school year, the district is able to adjust its spending accordingly. The school district would also be affected by the expenditure and taxing limits if major capital improvement programs are to be undertaken. By law, the district's unit rate for the retirement of bonded debt must be included in the total assessed rate. As long as the rate does not exceed the ceiling, no problems will occur, however, should the desired taxing rates exceed the ceiling, some trade-offs will need to be made, possibly affecting the school district. Again, more detail on this legislation is presented in Chapter 6.

As Tonopah's enrollment nears 600, the school district will be faced with facility capacity problems requiring several additional classrooms and possibly expanding some other facilities. Fortunately, the Tonopah schools will have excess capacity for some time providing sufficient lead time to design and implement an expansion program.

Housing

In 1970, housing in Nye County consisted of 2,093 dwelling units. Of these, 1,813, or 86.6 percent, were occupied; 1,271 (60.7 percent) were single-family dwelling units, 256 (12.2 percent) were multi-family units, and 566 (27 percent) were mobile homes. The total number of units was 8.1 percent higher than in 1960. The number of mobile homes had increased nearly 125 percent during the same period, indicating an increased dependence on mobile homes as permanent housing. The 1970 Census also reported that 26 percent, or 476, of the 1,813 occupied units were inadequate, lacking some or all plumbing facilities, or were over-crowded (i.e., defined as an occupancy rate exceeding 1.01 persons per room).2/

The vacancy rate reported in 1970 in Nye County exceeded 13 percent.2/ This does not, however, necessarily indicate a general housing surplus in any given community. Given the size of Nye County, it is possible that there could have been housing shortages in particular areas due to uneven distribution of the population and the housing stock.

Very little data are available to indicate any significant changes in the housing situation in Nye County since 1970. According to a Nevada Housing Division study conducted in 1976, 922 new mobile homes were located in Nye County between 1970 and 1975.13/ If a significant number of these were replacement units, it may indicate that mobile homes are being used to provide more adequate and affordable housing.

Since 1970, most of Nye County's growth has taken place in the Beatty and Pahrump areas. This area has also had more growth in housing, predominantly mobile homes and single-family dwelling units. Additions to the housing supply were estimated to be 95 dwelling units per year (see Chapter 6). Although there are no data to document the number of units by type, it is obvious that the share of total dwelling units being accounted for by mobile homes is increasing, at the expense of permanent single-family units.

With the lack of data on the current quantity or adequacy of housing in Nye County, baseline housing needs were projected based on the assumption that all growth will require a proportionate increase to the housing stock, with no unsatisfied demands for either upgraded or replacement housing. Thus, under the baseline scenario, the housing needs correspond to the projected population increase. It was assumed that one additional housing unit would be required for each additional 2.8 persons. This value is equal to the average number of persons per household in Nye County in 1970.2/ It was further assumed that the housing preferences would continue to reflect an increase in the number of mobile homes. Thus, the allocation of new housing was 45 percent mobile homes, 12 percent multi-family, and 43 percent single-family dwelling units. Assuming that 95 additional units will be built each year, the resulting baseline housing situation, without the project, is shown in Table 11. As shown, the estimated additions to the housing supply exceed the estimated demand by 36 units per year. Obviously, excess housing would not continue to be built unless the supporting demand existed. Rather, the excess supply represents additional potential housing which could be built if needed.

Table 11

BASELINE HOUSING SITUATION FOR THE FUTURE POPULATION WITHOUT THE PROJECT, NYE COUNTY

Year	Single-Family	Mobile Homes	Multi-Family	Total Estimated Demanda	Total Estimated Supply	Excess Supply
1980	27	25	7	59	95	36
1981	27	25	7	59	95	36
1982	27	25	7	59	95	36
1983	27	25	7	59	95	36
1984-1988	131	125	35	291	475	184
1989-1993	131	125	35	291	475	184
1994-1998	131	125	35	291	475	184
1999-2001	78	74	21	173	285	184
Totals	579	549	154	1,282	2,090	808

[a]Five-year totals, i.e., 291 dwelling units, do not equal five times the annual figure, due to rounding.

Source: Abt Associates Inc., 1980.

The 1970 U.S. Census did not provide information about the number or condition of housing in the town of Tonopah. Discussions with local officials indicated that there have been only a few additions to the housing stock since then, mostly single-family dwellings and mobile homes, and that there continue to be problems with inadequate housing.14/ Other discussions indicated that the housing situation is very tight, with few units for sale or for rent. Rental rates are fairly moderate, currently ranging from $160 to $200 per month for a furnished unit, including utilities, at the only large apartment house in Tonopah. Problems seem to be related more to availability than cost. Another indication of the housing situation is that the U.S. Air Force has rented two complete motels (110 rooms) on a long-term basis to provide housing for airmen from Clark County.14/

Based on these discussions and personal observation, the housing stock in Tonopah consists mostly of single-family and mobile homes with a limited number of multi-family dwellings. While the percentage distribution is not known, the percentage of mobile homes probably exceeds the

1970 county-wide average of 26 percent, with the difference reflected in a lower percentage of multi-family units (not including the long-term rental of motel rooms).

If the population growth assumed for the baseline occurs, Tonopah's share of the total housing needs would be equal to its share of the total population (i.e., 26.3 percent). Based on the same dwelling unit mix assumed above, Tonopah will require an additional 337 dwelling units between 1980 and 2001 without the project, including 152 mobile homes, 40 multi-family dwelling units, and 145 single-family units. No major problems are expected in providing this number of housing units. However, if the demand for housing increased beyond the anticipated levels, problems could arise from: (1) the limited construction trades industry in Tonopah, and (2) a limited amount of readily developable land.

Land Use

Land use and ownership in Nye County were inventoried for the 1970 General Plan. Since that time, land use has remained essentially unchanged. The General Plan was updated in 1978 to clarify and enlarge some mining area boundaries, and to make some minor changes in the southern part of the county, in the Pahrump area.

According to the 1970 General Plan, Nye County encompasses 11,560,960 acres, or 18,064 square miles.15/ Of this, 94.6 percent, or 10,933,440 acres, are administered by the Federal government and are contained in Bureau of Land Management lands, the two U.S. forest reserves, and the two test sites controlled by the U.S. Department of Energy. State and privately-owned land includes approximately 627,520 acres (or 5.4 percent of total acreage). Land ownership and administration are listed in Table 12.

At the time the General Plan was written, a map of the land uses in Nye County was developed. The predominant land uses are national forest lands, government withdrawals (Indian colonies and the test sites), agricultural lands, range and grazing lands, urban areas, and high mountain areas. The map also shows potential land uses. Land uses in the county are severely restricted by the rugged, dry terrain.

The land use plan was considered the basic element of the 1970 General Plan, which was updated in 1978 is still in effect. A few key elements in the 1978 Nye County Land Use Plan are:

- o current and past uses of the land resources should be a guide for the development of future planning elements.
- o the concept of multiple use should be the overriding policy in planning for Federally-controlled lands.
- o the mining and agricultural uses of lands are strongly held as a best use for much of the land within Nye County.

Table 12

LAND OWNERSHIP AND ADMINISTRATION

Of the 11,560,960 acres of Nye County, the Federal government administers the following[1]:		
6,755,092 acres	Bureau of Land Management	58.4%
1,505,673 acres	Toiyabe National Forest	13.0%
248,969 acres	Humboldt National Forest	2.2%
115,240 acres	Nevada portion of Death Valley National Monument	1.0%
2,300,000 acres	Las Vegas Bombing Range	19.9%
3,785 acres	Duckwater Indian Reservation	<.1%
4,681 acres	Yomba Indian Reservation	<.1%
		94.5%
State-owned lands include:		
515 acres	Ichthyosaur Scientific State Monument	<.1%
Privately owned lands include:		
627,005 acres		5.4%

[1]The acreage administered by the Federal government is shown for 1970. The amounts administered by the BLM may fluctuate to a limited degree due to land exchanges.

Source: Taken from Raymond M. Smith, "General Plan - Nye County, Nevada, 1970-1985," and David Eddy, Geologist, Bureau of Land Management, Tonopah Resource Area, Personal Communication, 1980.

Land use control in Nye County is exercised by the county commissioners and the Nye County Planner. There are three types of land use control in the county. These are; a building code which requires the planner's approval of a construction plan prior to construction, a subdivision ordinance which requires the commissioners' approval of any action which would result in the subdivision of land, and the land use master plan which defines current uses in the county and generally describes acceptable future uses for specific areas. Variances from the land use plan must be requested from and approved by the commissioners. These ordinances provide the commissioners with a means of controlling land use in Nye County, inasmuch as such control is desired, either by the commissioners, or by the residents.14/

Livestock raising is the major form of farm/ranch activity and grazing is a major land use in the county. The grazing productivity of the land is very low in the region. Since the BLM manages the majority of the land in Nye County, it also licenses considerable grazing on public lands (see Vegetation discipline report for additional details on grazing). However, the BLM is currently preparing a grazing environmental statement which is expected to recommend a management program which will decrease the amount of livestock grazing which is licensed in the area, increasing the allocation of forage for other uses.16/ This plan will supplement the BLM's Management Framework Plan and Planning Area Analysis documents which provide management plans for the affected area. Crop raising is limited in Nye County, the principal crops being cotton and hay. Most of the hay is grown on ranches throughout the county and is used for livestock feed in those operations. The cotton is grown on irrigated land in the Pahrump area and is restricted by the limited availability of water.15/

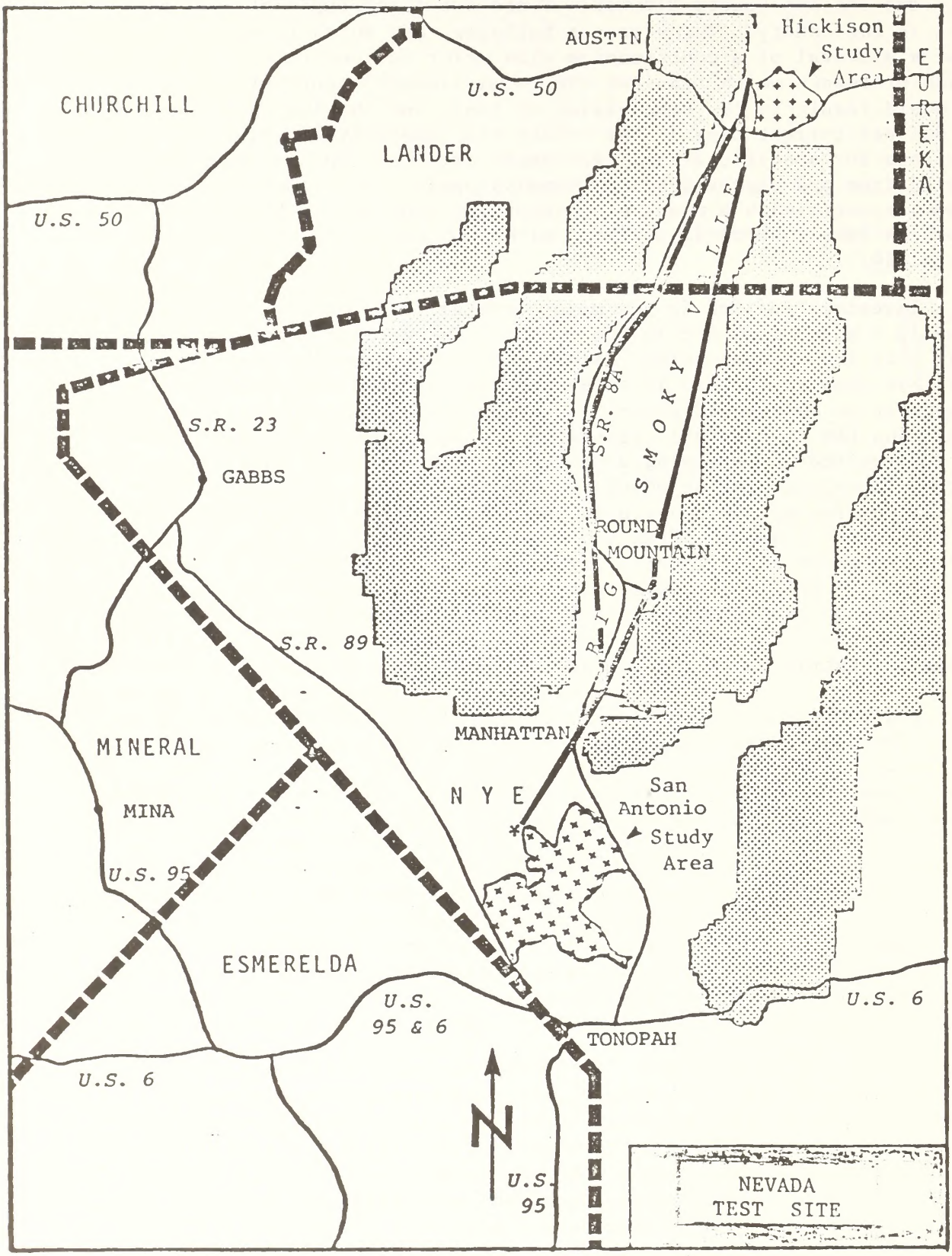
Residential land includes several small rural communities in Nye County. The major townships in the county are Beatty, Gabbs, Manhattan, Round Mountain, Mercury, and Tonopah. There is some commercial usage in each of these communities. Of the major townships, Tonopah, Beatty, and Gabbs are major population centers; however, Pahrump, in the southern part of the county, has experienced considerable population growth since 1970, and is becoming the major population center in the County. This growth is associated with the growth of the Las Vegas metropolitan area.

Within Tonopah, residential uses predominate, with most of the commercial and retail establishments located along U.S. 95, which runs through the center of town. The two small parks and the school athletic field are the principal recreational uses within town. The schools and the county courthouse are the two primary government facilities in town. Land development in the Tonopah area is however restricted by two factors. First, the BLM manages a majority of the land surrounding Tonopah. This impedes the towns ability to expand freely. Since land is needed for the town's expansion, the BLM has agreed to sell several parcels within the town's boundaries to the county. The county will use some of this land for recreational facilities and open space, and will sell the remaining land, easing the demand for developable land. Second, the town is located on patented mining claims, which makes the consolidation of sufficient amounts of land for development extremely difficult.14/16/

FIGURE 5

Bureau of Land Management's Wilderness Review

Intensive Study Areas in the EIS Area



LEGEND

No Scale

- County Boundary and NAME
- Bureau of Land Management Intensive Study Area
- Toiyabe National Forest
- Proposed Mine/Mill Site
- Proposed Transmission Line Corridors

Land use in the Big Smoky Valley is predominately agriculture and mining. Several mines are active in the area around Round Mountain and Manhattan, with exploration for other possible operations continuing. The agricultural uses are primarily limited to raising hay and cattle grazing on the open ranges. Most of the land in the valley is administered by either the BLM or the U.S. Forest Service. In fact, both communities are situated either partially or wholly on BLM land. There are small parcels of privately owned land throughout the valley, and there has been some interest in the valley under the Desert Land Entry program. However, state restrictions on the development of water supplies in the valley, for agricutural purposes, may restrict the scope of that program.

The lands that would be used for both the mine/mill complex and the residential development are now open space and undeveloped. Livestock are grazed on some of this land, the rest being vacant. The uses being considered for those areas are consistent with the master plan as updated in 1978. All of this land is privately owned or on patented mining claims.14/

The BLM is currently engaged in two programs that may affect land use in Nye County, particularly in the northern half. One of the programs is the reevaluation of licensed grazing on public lands. The second is part of a nation-wide program to review all lands administered by the BLM for possible designation as wilderness areas.

The BLM's wilderness inventory program was undertaken in response to the Federal Land Policy and Management Act of 1976. One portion of the law requires the BLM to review all public land roadless areas containing 5,000 or more acres having wilderness characteristics, determine their suitability for wilderness designation, and report these findings to the President. The President is then required to report his recommendations to Congress for final determination.

The BLM has completed its initial inventory of lands in Nevada and concluded that most of its lands in the Big Smoky Valley and near Tonopah were not suitable for wilderness designations. Two parcels, the San Antonio and Hickison study units, were found to meet the requirements for intensive study, i.e., they were not immediately eliminated from consideration for wilderness because they failed to meet the established criteria. Their locations relative to the alternative proposed transmission corridors and the mine/mill site are shown on Figure 5.

During the public comment period, requests were received from the public that each parcel be subjected to an accelerated intensive review program. The intensive process is the next step in the wilderness inventory program, during which all units not earlier dropped from consideration are given another, more intensive study to determine if they have wilderness potential. Accelerated intensive reviews were conducted for both units. As a result, both were found to lack outstanding opportunities for solitude or a primitive and unconfined type of recreation and were therefore dropped from further wilderness consideration.

Future land uses in Nye County and Tonopah are expected to follow current trends. Ranching use is expected to remain steady, while mining is expected to increase. Residental development will continue in Pahrump and

Tonopah. In particular, Tonopah's land use patterns will not change significantly, but, the baseline population growth will require the development of approximately 120 acres of land in the Tonopah area, most of which will be for residential purposes. This estimate is based on a standard of 12.67 acres of land development per 100 people (see Chapter 6) times the 945 additional persons expected in Tonopah. Other areas which experience population increases will also experience increased land development. The BLM is expected to sell several parcels of land near Tonopah and the land in the communities of Round Mountain and Manhattan to the county, which will use the land to accommodate further growth. Finally holders of patented mining claims will continue to maintain control over their claims.

Health Care

Health care in the study area are provided by various state and local agencies. Nye General Hospital, located in Tonopah and built in 1971, is the only hospital in Nye County, providing both acute and long-term care, with 21 beds for acute care and 24 beds for long-term care. It offers a wide-variety of primary and secondary treatment, covering nearly all areas of health care. Occupancy rates have been relatively low recently, averaging around 20 percent for the 21 acute care bed and 60 percent for the 24 long-term care beds. The low occupancy rates reflect the excess capacity at the hospital, it being built to serve a population base significantly greater than the current population of Tonopah and the surrounding area. Two physicians, under contract with the Central Nevada Rural Health Consortium (CNRHC), practice at the hospital. There are 10 nurses (RNs and LPNs), 12 nurses aides and a number of support and administrative personnel. Operated by Nye County, the hospital is not operating at a profit and requires a subsidy from the county. While this is due to a number of reasons, two of the main causes are a high ratio of uncollectable bills and the low occupancy ratio. Both of these are expected to improve over time.7/

The Central Nevada Rural Health Consortium provides primary health care in four rural Nevada counties, including Nye. Its programs use Federal assistance funds to establish and maintain a variety of services. These include: operating clinics in rural communities, e.g., its clinic in Tonopah is located at the hospital; contracting with doctors, physician's assistants and specialists to staff its programs, either on a part-time or full-time basis; operating pharmacies in its clinics; and it recently began providing dental care services as well. Once established, the clinics are to use revenues collected for services to reduce or eliminate the need for financial assistance. In addition to the two physicians (who practice at the clinic), the consortium has three dentists, two physicians' assistants, and five medical assistants to provide care in Nye County. It also provides the necessary support and administrative staff. They have also contracted with several specialists who come to Tonopah or the other clinics on a regular or as-needed basis.17/

A public health nurse is located in Tonopah, serving Nye and Esmerelda counties. A variety of services are provided, including immunization clinics, family planning services and nutrition counseling. The nurse also serves as the nurse for the school districts. Service is provided on a regularly scheduled basis throughout the county.18/

Emergency medical treatment and rescue services are provided through three groups or organizations: the volunteer ambulance program, the Nye County Search and Rescue Group, and the Tonopah fire department. Ambulances are in Tonopah, Round Mountain, and Manhattan, as well as throughout Nye County. These are staffed by volunteer personnel, most of whom are certified Emergency Medical Technicians, (EMT's). Generally, patients are transported to Nye General; however, if the distances involved are too long, or other conditions dictate an alternative, they will transport patients from Nye General to other facilities. Emergency air ambulance service is also available locally, coordinated through Nye General.7/

The Nye County Search and Rescue group is another volunteer organization providing emergency services. It operates primarily in cases involving downed planes, lost parties, or mine disasters. Its primary objective is to locate and rescue the victims for other agencies to provide emergency health care.19/

Finally, the Tonopah Fire Department offers a fast response emergency rescue service in Tonopah and the surrounding areas of Nye and Esmerelda counties. Staffed by fully-equipped trained paramedics, it operates when the purpose is to rescue and stabilize victims for transport by the volunteer ambulance service.20/

Under the baseline scenario, few if any changes are expected in health services. An increased population would result in an increased occupancy rate for the hospital, an increase in the number of patients for doctors and dentists seeking to establish practices, and for the consortium's clinics. These can be viewed as beneficial, in that they can help support increased provision of health care services. In fact, it was noted that if growth results in more emergency situations, the quality of care may be better due to increased proficiency of the personnel. No additional staff would be needed at the hospital, or by the emergency service groups. The population growth could, however, require additional staff for the CNRHC to operate its programs, e.g., another doctor or physician's assistant at its Tonopah clinic. Growth may also require the public health nurse to alter the current scheduling of services to meet the new demands. These effects are not expected to adversely affect the provision of service.

Law Enforcement

The three principal law enforcement agencies in Nye County are the sheriff's department, the court system, and the state highway patrol. The sheriff's department serves the entire county with substations in the major population centers. The location and staffing of county stations are shown in Table 13. The department is planning a new substation in Lathrop Wells with two small offices, and a new facility is in the planning stages for Gabbs that would include two small offices plus cells.

The sheriff's department, with 33 officers, has a ratio of 4.1 officers per 1,000 population, a relatively high level of staffing for a rural area. This level of staffing is required because of the size of Nye County and the number of population centers located on the periphery of the county. The sheriff expressed a desire to provide 24-hour coverage, i.e., five officers, in each service area listed in Table 13. Based on this desired staffing level, the following additional staffing would be required: (1) three deputies in Gabbs, (2) two deputies in Beatty, (3) two deputies in Lathrop Wells, and (4) four deputies in the Big Smoky Valley, or a total of eleven additional deputies. However, not all of these would have to be full-time officers.

The department has 19 vehicles, several of which are in need of replacement. The sheriff also expressed a desire to provide a vehicle for each officer. Thus, with the existing staffing level 13 additional vehicles would be required. If the desired level of staffing is included, this would increase to 24 vehicles.21/ Both of these programs would require a higher budget for the sheriff's office, which requires the approval of the county commissioners. At the present time, a proposal to accomplish the above has been submitted to the commissioners.

Dispatch services are currently inadequate to meet department needs because the topography prevents full-time radio communication. Thus, much of the communication is via telephone. The two dispatch facilities in Pahrump and Tonopah provide the main source of radio communication to the vehicles. They also maintain radio communication between these centers. The department is in the process of upgrading its dispatch system by tapping into a state-wide radio system, which when accomplished will allow for radio communciation throughout the county.21/

Additional law enforcement services will be needed to meet the demands of the baseline growth projected for Nye County. Current programs and plans, when completed, will provide increased facilities and improved communications which will improve the overall quality of service. The increased population will also require additional vehicles and staff. No budgetary or manpower problems are foreseen which would restrict the department's ability to maintain its current level of service.

The local judicial system is comprised of two courts and several county and state agencies. The 5th Judicial District Court, located in Tonopah, is the principal court in the County. Its jurisdiction includes major felonious crimes and civil cases. One judge is now assigned to the 5th Judicial District. The Justice Court has local jurisdiction in misdemeanors, traffic violations, and minor civil cases. It is presided over by a justice of the peace. Justice courts are located in Tonopah, Gabbs, Beatty, and Pahrump. Both courts also have court clerks working with the court.

Other agencies working in cooperation with the judicial systems include the Nye County District Attorney's office, the Nye County Juvenile Probation Department, and the Nevada State Public Defender's office, located in Carson City. Each of thes agencies plays a role in the representation of the county's or state's interests, working with juveniles in

prevention and/or rehabilitation programs, or providing for public defenders where needed. With the exception of the State Public Defender's office, the offices and staff of these agencies are located in Tonopah.22/

Table 13

NYE COUNTY SHERIFF'S DEPARTMENT PROFILE

Location (Service Areas)	Staffing	Facilities
Tonopah	11 Full-Time Officers	Dispatch center, detention and jail facility, and administrative headquarters.
Pahrump	7 Full-Time Officers	Two detention cells, dispatch center.
Gabbs	1 Full-Time Officer and 2 Town Marshalls	None
Beatty	3 Full-Time, 1 Part-Time officers	Two holding cells.
Lathrop Wells	3 Full-Time Officers	None
Big Smoky Valley	1 Full-Time Officer	None
Currant	1 Part-Time Special Deputy	None
Mercury Test Site	5 Full-Time Officers	

Baseline growth would affect these agencies in two ways: increased case loads and increased work loads in support of local government administrative functions. Such changes would translate into increased staffing needs, though the number, timing, and specific agencies are uncertain.

The Nevada State Highway Patrol jointly serves Esmerelda and Nye Counties. Two resident patrolmen are located in Tonopah and one resident patrolman is located in Beatty. The patrol is planning to locate a resident patrolman in Pahrump. The Patrol offices in Tonopah are housed in their own building, and dispatch services are provided out of Las Vegas. Baseline growth is not expected to affect the Patrol.23/

Fire Protection

Fire protection in Nye County is provided primarily by Federal agencies and volunteer rural organizations. Federal agencies have primary responsibility for fire control on the lands under their respective jurisdictions. Because the Federal-land districts do not coincide with the county boundaries, agencies involved with fire control in Nye County include several districts of the U.S. Bureau of Land Management, the U.S. Forest Service, and the agencies or contractors responsible for fire control at the Nevada Test Site. Around the Tonopah area, the Forest Service has entered into a cooperative agreement with the BLM to provide first-response fire control service on BLM lands.24/

Outside of the Federal lands, which comprise over 94 percent of the county, fire protection is provided by volunteer fire departments. Equipment is located throughout the county, although the type and condition of the equipment and facilities varies greatly with departments often sharing facilities and personnel with the volunteer ambulance service. There are no formal mutual aid pacts in Nye County; however, firefighters and units from several locations have responded to serious fires in the past. This type of informal cooperation is expected to continue.

The Tonopah Fire Department provides fire protection and rescue services in Tonopah. It is funded by the town of Tonopah. The department's primary service area includes Tonopah and the area in an 8-mile radius around the town, including the airport. It also sends units to outlying rural areas or to auto accidents or fires along the highway if requested to do so by other rural fire departments or by the sheriff's office; however, this is done only if it will not significantly decrease the level of protection afforded the town.

Current staffing includes five full-time paid professional and 30 volunteer firefighters. First-response responsibilities are scheduled such that the initial response always includes at least one professional (two or three during the day) and four volunteers. The volunteers operate on an on-call basis for 12-hour periods during which they are required to remain within a defined radius from the station. All of the firefighters are equipped with radio communication devices which further improves emergency response by allowing some volunteers to go to the station for additional equipment and others to respond directly to the scene of the fire or accident (providing support to the initial response crew). The split response also has the advantage of enabling first the protection of life and then property. Using the communication devices, other volunteers and equipment can respond if the need arises.20/

The equipment is housed at one central station in Tonopah. It is a relatively new station, completed in 1974. It provides sufficient space as well as some excess capacity. The department's equipment inventory list is given in Table 14.

Table 14

TONOPAH FIRE DEPARTMENT EQUIPMENT INVENTORY

Vehicle	Condition	Description
1978 Ford Rescue	Excellent	Fully equipped, EMT kits, oxygen tanks, etc.
1968 Howe Ford Pumper	Excellent	1,000 gpm pumper, 1,000 gal. storage, 1,200' hose
1966 Ford Pumper	Excellent	750 gpm pumper, 935 gal. storage, 1,800' hose
1944 American LaFrance Aerial	Excellent	65' aerial ladder
1942 American LaFrance Pumper	Excellent	750 gpm pumper, 2,500' hose

The current equipment provides a combined pumping capacity of 2,500 gpm, a storage capacity of 1,935 gallons, and 5,500 feet of hose. Based on recognized planning standards, the fire department provides more than adequate capacity for the existing and baseline needs.25/

The town's water distribution and storage system is completely adequate for most firefighting needs. It provides approximately 1.9 million gallons of storage, which delivers sufficient pressure in most areas so that no pumping is needed. However, even in the few weak spots, a high standard of firefighting capability can be delivered using the available water, the nearly 2,000 gallons of storage, and the available pumping hose capacity. All of these factors allow the town to maintain a Class 6 fire insurance rating, a high rating for a rural community of its size.

The Tonopah fire department also provides rescue service to Tonopah and the surrounding area. The rescue team includes 19 EMTs, with four more currently enrolled in training courses. In this capacity, the fire department acts to rescue and stabilize victims to prevent loss of life. The victims are transported by the local volunteer ambulance services.20/

Under the baseline scenario, no significant changes are expected in the area of fire protection. Most additional growth is expected to be concentrated in existing population centers which already have organized volunteer departments. In fact, should any of the growth occur in the very rural areas, fire protection may actually improve because of increased participation and staffing of the local volunteer department.20/

Public Utilities and Communications

Besides the utility services provided by the Tonopah Public Utility Company, electrical, telephone, and propane gas services are locally provided by private companies. These include the Sierra Pacific Power Company (SPPCo), the Nevada Telephone and Telegraph Company (NT&T), and the Cal-Gas and Pargas companies, respectively. Although they do not necessarily serve the same areas, they do provide services in the Tonopah, Manhattan, and Round Mountain areas. Discussions with officials of three of the companies indicated that their operations are either currently in a position to provide for the projected baseline growth or are currently making plans to be able to provide that capacity by early 1980. These expansion programs include: the addition of switching equipment for 400 more telephone lines by NT&T to be completed in early 1980 and a doubling of the power transmission system capacity for Tonopah by SPPCo to be completed in 1981. The SPPCo system is flexible enough to allow incremental increases in capacity to maintain adequate levels.26/27/28/

A cable television company, Tonopah Television, Inc., is also operating in Tonopah. Through its system , it offers five non-local channels of television viewing, including three Reno stations, an educational station, and a station from Atlanta, plus a local weather and advertising channel. The Home Box Office (HBO) movie entertainment channel is also offered.29/

There is one local newspaper, The Tonopah Times Bonanza, a weekly paper covering primarily local and regional news. The same owners operate Central Nevada Newspapers, Inc., an organization which provides local and regional coverage on a weekly basis for several rural areas and communities around the Tonopah area. Several major regional daily newspapers from Reno and Las Vegas are also available in Tonopah.

Water

Tonopah Public Utilities (TPU) provides water to residents of Tonopah and to a few locations outside of town. The water supply is groundwater from the Ralston Valley, approximately 18 miles north of town. Water is pumped from five wells, the deepest of which is 80 feet, through two booster stations to three storage locations in town. The water quality is excellent and no treatment is required. The superintendent of TPU indicated that the supply is extremely reliable and produces 11 million gallons/month in the summer while pumping only 50 percent of the time. The transmission line was recently replaced and is in good condition.30/

Water is stored in tanks at three locations in town. The total terminal water storage capacity available is 1,890,000 gallons. Not only is this adequate storage for firefighting purposes, but it would supply the town water needs for over six days based upon current consumption levels. The stored water requires chlorination to reduce algae levels.20/31/

The water distribution system has been updated with 10-inch and 6-inch lines. The system includes approximately 20 miles of pipe within town and is capable of delivering 30,000 gallons per hour. The system is metered with approximately 950 hookups.29/

The water system is in good condition and has excess capacity to serve Tonopah residents. Current water demand averages about 200 gallons per minute based on a service population of 2,800 (including tourists). The system served a much larger population reliably during World War II and flow tests on the wells indicate they are capable of providing 670 gallons per minute, over three times the current usage. However, the superintendent indicated that the pumps may need upgrading at the well sites at some point. Based on a projected population of 3,005 in the year 2000, the system will be adequate to serve that population while maintaining additional capacity in the system, although some expansion of the distribution system may be necessary depending on where the growth occurs.31/

Wastewater

Tonopah Public Utilities (TPU) provides wastewater disposal and treatment services in Tonopah. At present there are over 700 residential and 90 commercial taps on the system.30/ The system provides treatment via a series of three treatment and settling ponds, with the treated effluent being used for agricultural irrigation purposes. The system is now at capacity and does not meet state environmental quality standards. Thus, only limited new hookups are being allowed until an acceptable treatment plant is constructed and operating. As an interim measure, the county is considering the addition of aeration devices in the existing lagoons. This would allow 500 additional hookups. A decision has not yet been made as to whether or not to install the aerators. However, if a decision to install them is made, the devices can be installed and operational within two weeks.14/31/

A wastewater facilities plan has recently been completed and has been submitted to the U.S. Environmental Protection Agency (EPA) for approval. The plan includes a new treatment plant with a design capacity of 5,000 persons, with an expansion capability for an additional 5,000 persons. If the development plans receive approval as expected, construction would begin in July, 1980 with completion and the beginning of operations estimated by December, 1980. The facilities plan also includes additions to the collection system to extend service to existing homes in Tonopah currently on septic tanks and to provide for future growth. The estimated cost of implementation is $888,000. Of this amount, the county's share is estimated to be about $120,000. The remainder is expected to be provided through federal grants. The county is expected to finance its share from its general fund. Connection and customer service charges collected from system users would provide the revenues to repay the monies to the general fund.

Because the current facility is operating at capacity and is in non-compliance with state standards, a new treatment plant is needed. It is assumed that given the current situation, the aerators will be installed, providing adequate treatment capacity until the permanent facility can be completed. It is also assumed that the new plant will be approved and constructed, on schedule, with the resultant affect on treatment capacity. Once completed, the facility will be able to serve the projected population of Tonopah in the year 2000, with a 60 percent margin of excess capacity.

Solid Waste

Tonopah provides solid waste collection and disposal services under a cooperative arrangement between the Tonopah Public Utilities Company (TPU) and Nye County. TPU collects and transports the refuse to the landfill, which is maintained and operated by the county, i.e., a county crew compacts and covers it. The landfill is located several miles from Tonopah on 20 acres of land acquired from the BLM. Although the site meets environmental quality standards, there have been some problems with insufficient compaction and cover, leading to blowing debris, etc. The EPA is aware of these problems and has expressed concern about the effects of increased population.14/30/ Although the site was originally designed to serve 5,000 people for 20 years, approximately 3.5 acres have been filled after four years of use by a population of approximately 2,000. The rate of fill will vary with terrain, but based on current patterns of use, the capacity of the site will be reached sooner than planned.

The current site has adequate capacity to serve both the current and baseline populations through the year 1990. After that, additional land may be needed. The county has identified other BLM lands adjacent to the current site that could be used to expand the landfill. The BLM has apparently agreed that this would be an acceptable land use for the area, although no final agreements have been made. With an increased population, additional men and/or equipment for collection and disposal of solid waste may also be needed.14/

Social Services

The social services currently available in Nye County include alcohol, drug, and vocational rehabilitation and counseling, foster and shelter home programs, home care services, mental health counseling, juvenile rehabilitation programs, and supplemental assistance programs, e.g., the food stamp program.32/ Many of these services are provided by various state agencies, with personnel in either Hawthorne or Tonopah. These offices serve multi-county areas with services offered on a regularly scheduled or an as-needed basis.

The county is also involved in the provision and administration of social service programs. Besides involvement with the above programs, county involvement includes travelers' aid programs, an indigent health program now being established, and information referral assistance. Also, a senior citizens assistance program is funded by the county, providing transportation, social security assistance, nutrition and health programs to the senior citizens in the area.33/

Discussions with individuals responsible for providing these services indicated that the baseline growth would not create any severe problems in providing services. The members of state agencies who were contacted also indicated that the state has a pool of resources available which can be used to supplement local personnel to meet short-term needs. Also, personnel can be reassigned to the area if justified by increased demand.32/

Community Facilities

Tonopah has several community facilities that are used by the public and provide a focal point for community interaction. The Tonopah Convention Center, in the center of Tonopah, houses the local Chamber of Commerce offices. The center serves as a visitor center and as a meeting place for small and large groups. The center is funded through a local room tax and from fees charged to facility users.34/

The Tonopah Public Library is a member of the county library system. Library hours are from 2:00 p.m. to 5:00 p.m. Monday through Friday and hours may be expanded. One librarian is responsible for library operations. The library avails itself of the resources in Las Vegas, such as a bookmobile that serves the entire county, audio-visual materials, and other library materials. The library was built in 1905 and contains 8,000 volumes. The building has no meeting rooms.35/

The U.S. Post Office in Tonopah provides both post office boxes and window services; there is no home delivery. Staffing includes the Postmaster and three part-time employees. The Postmaster expressed an urgent need for about 500 post office boxes and three full time employees. The building appears to have some capacity for the needed additions.36/

The population growth projected through the year 2001 is expected to be moderate and should not cause severe additional strains to these facilities. The post office facility problem is apparently the result of a backlog of unmet demands for service, and if additional boxes are received the service demands of the gradual population growth could be more easily met. Providing adequate service may also become a problem if additional staffing is not forthcoming to keep pace with the expected baseline population growth.

Attitudes and Lifestyles

The culture and attitudes of the people of Nye County today largely reflect the history and geography of the study area. Local residents generally share in the traditional value systems typical of isolated rural areas of the west, modified somewhat by the "boom and bust" characteristics of mining activity and fluctuation in military employment in the area. These intermittent cycles of rapid growth and decline have historically been partially offset by a number of stabilizing factors; including Tonopah's continuing role as county seat and administrative center for government agencies, such as the Bureau of Land Management and the Forest Service; the city's role as a service center for tourism fostered by its location on a major highway between major urban centers; and the influence of agriculture, primarily ranching, on the local economy and lifestyle.37/

Social attitudes and mores within the study area are basically conservative and have been marked by relatively slower rates of change than other parts of America. New social norms and patterns are slow to be accepted, and any social change has a tendency to be seen as "radical." Ranching and mining support a sparse population and the few isolated towns serve the function of centers for commercial, governmental, and other services such as repair shops, cafes, bars, and other meeting places. The

townspeople share many of the same attitudes and social and political values as their country neighbors. Older frontier ethics and social character are prized, particularly among the ranchers, including strong family ties and the traditional American emphasis on self-sufficiency and personal initiative, bordering on "rugged individualism."

The people of the area place high value on attachment to the land and its traditional uses. Local residents are accustomed to wide horizons, vast expanses of space, clean air and water, and an open, natural environment which contributes to their personal well-being. They are adjusted to wide variations in climate and temperatures; and they are largely dependent on the land for their livelihood and take pride in making their living from a land which yields its bounty only to hard work and protracted struggle. Long-time residents have largely inherited the social values of the 19th century cattlemen and the prospector.

The history of open range and frontier ethics has had a strong influence on community reaction to the issues raised by increased development. Many residents are opposed to land use controls, especially where planning and zoning interfere with what is perceived as the individual's rights to do with his property as he sees fit. Residents are also concerned about the control of vast amounts of land by the BLM. They feel that the land is not being managed to their best interests and that continued BLM planning and management may impede further economic development.24/

In the face of new development in both the mining and military sectors, local attitudes in Tonopah are mixed. There are two identifiable groups in the community. First are the "old-timers" and ranchers who have made their lives in this desert county and think of the land and its resources as their own. Theirs is a culture of self-reliance and resistance to outside control in spite of the Federal government's ownership of almost all of the county's land. Hence, these townspeople and their rural neighbors are somewhat wary of the disruption that new development might bring, but at the same time they would like to see some stimulus of the local economy. This ambivalence toward development is reflected in the comment of a fifth-generation resident, who said "I'd make some money...but I'd like to see (development) go some place else...we've already got all the lifestyle we need."38/

A second group of Tonopah citizens consists of government employees, school teachers, and other "newcomers" with more outside-oriented views and ties and associations with other locales. These people are anxious for the benefits that development can bring. The county planner, a non-native, welcomes the challenge: "Judicious expansion is not considered bad." And the superintendent of the county's schools echoes this sentiment: "I'm for the inevitable."38/ Merchants and businessmen who are long-time residents share in this outward orientation, although to a lesser degree, because of their economic dependence on tourism and development. These patterns are typical of rural communities faced with the prospect of rapid growth and possible major changes in their community and lifestyle.39/

In spite of differences of opinion about the rate and extent of regional development, citizens of the region are proud of their accomplishments in an isolated area with limited potential. In many ways they share a common set of values that has enabled them to create and maintain a cohesive community more than 200 miles from the nearest population center. Traditionally, it has been this very isolation that has enabled Tonopah to integrate newcomers into the community. Ethnic and religious differences are diffused within a framework of common purpose. Over the years, the town has developed many services and fraternal, youth, and church organizations, each providing a base for community-oriented activities.

Citizens value family harmony and relate such harmony to the smallness of their community. For just this reason, many residents have migrated from other areas and others have returned after living elsewhere. They enjoy the outdoor recreational opportunities that the region offers, and they share a certain easy going detachment from the outside world.

Since the inception in 1901, the town of Tonopah has experienced both "boom" times and "dry spells." Mining was the mainstay of the community through the beginning of World War II, although the annual production peaked in 1913. During World War II the Tonopah Army Air Force Base (now the Nye County Airport) was established east of town and brought nearly 5,000 soldiers to the community. After the war Tonopah's population dropped to below 2,000. Since that time military and mining activity have fluctuated in the community but Tonopah relies primarily on tourism for its livelihood as it continues to exist today as a small, rural, western community.1/ Citizens do not fear or resist change, as they have seen changes come and go and yet they continue to survive, but they are cautious about any changes that might threaten their traditional values and sense of community.

Transportation

The transportation system in Nye County is limited by the large land area of the county, geographic and land use constraints (e.g., the Nevada Test Site), low population densities, and the remoteness of many of the communities from any major towns and cities. This has led to a heavy reliance on surface transportation, which in turn had led to the development of an expansive highway network. The network consists of nearly 3,000 miles of Federal, state, and county roads and highways, about one-third of which are paved.40/41/

The major highways in Nye County are U.S. 95 and U.S. 6. U.S. 95 serves as the primary link between Tonopah and Las Vegas to the south and Reno to the north. U.S. 6 is a major east-west highway providing access to the eastern portions of Nye County, Ely, and Salt Lake City, as well as to California. These two highways intersect in Tonopah, making the town a central focus of travel in and through Nye County and enhancing its position as a trade and service center.

Important state highways linking Tonopah with the remainder of Nye County and the state are State Highways 376 (formerly 8A), 25, 89, and 81. All of these are paved except Highway 89 which is paved for 3 miles north of Tonopah and graveled for the rest of its length. Of particular importance are Highways 376 and 89. Highway 376 intersects U.S. 6 six miles east of Tonopah and runs generally north through the Big Smoky Valley, while Highway 89 runs northwest from U.S. 95-6 near Tonopah and provides access to the proposed mine/mill site.42/43/

Average daily traffic data for 1978 indicate that current traffic volumes on the roads range from a low of five vehicles per day on State Highway 89 to a high of 1,700 vehicles per day on the combined U.S. 95 and 6, immediately northwest of Tonopah. With the exception of Highway 89, which cannot be evaluated because it is unpaved, all roads in the study area currently provide at least "C" level service; defined as providing relatively free-flowing traffic averaging approximately 50 miles per hour. No roads in the study area presently have capacity problems and none are expected to develop (see Table 15 and Chapter 6).41/44/

The maintenance of the highway network is the responsibility of the Nevada State Highway Department and the Nye County Roads Department. Between the two agencies there are 17 maintenance crews and one engineering crew. The crews are stationed throughout the county. Both departments have a variety of equipment available to perform their duties. The departments also work cooperatively, providing labor and equipment to the other, avoiding unnecessary duplication. However, lack of sufficient equipment, labor shortages, relatively low wages, and tight budgets were identified as problems in both departments, preventing them from completely fulfilling their duties.40/41/

Other available transportation services include a privately owned busline, the Las Vegas-Tonopah-Reno Stageline offering twice daily service between Reno and Las Vegas through Tonopah,45/ and charter flying service at the Tonopah airport. There is no scheduled air service in Nye County. Although railroads were once an important part of the transportation system in Nye County, the nearest railhead is now at Mina, Nevada, 70 miles northwest of Tonopah.46/

There are numerous small airports in Nye County. The largest of these, Tonopah Airport, is 8 miles east of town. It has two paved runways (the longest is 8,900 feet long), a fixed-based operator providing charter flying services, and a Federal Aviation Administration Flight Service Station. The county has received a $450,000 grant to resurface one of the runways and the taxiways as part of an improvement program that will use additional grants to resurface the other runway and to add runway and airport lighting.46/

The town of Tonopah is bisected by combined U.S. Highway 95 and 6, providing four traffic lanes, with the local street system branching out on both sides of the highway. Many of the local streets are paved though few have curbs and gutters. In 1978, the annual average daily traffic reported on Highway 95-6 in town was 7,800. Flow through town does not create significant problems, but there is limited parking in the center of town, creating some problems.44/

Table 15

CURRENT AND BASELINE TRAFFIC VOLUMES AND HIGHWAY CAPACITIES NEAR TONOPAH

	U.S. 95 & 6 Northwest of Tonopah	*U.S. 95 & 6 at Bryan Ave. in Tonopah*	*U.S. 95 South of Tonopah*	*U.S. 6 East of Tonopah*	*S.R. 89 North of Tonopah*	*S.R. 376 North of Airport*
Average Annual Daily Traffic						
• 1979	1,735	7,960	1,340	840	5	300
• 2001	2,515	11,310	1,905	1,195	7	430
Peak Hour Traffic Volume						
• 1979	347[a/]	876[b/]	268[a/]	168[a/]	1[a/]	60[a/]
• 2001	503	1,244	381	239	2	86
Hourly Capacity	956	2,000	956	956	N.D.	624
Volume/Capacity Ratio						
• 1979	.36	.44	.28	.18	[d/]	.10
• 2001	.53	.62	.40	.25	[d/]	.14

Source: Abt Associates Inc., 1980.

N.D. = Not defined for graveled roads.

[a/] Assumed tc be 20 percent of annual average daily traffic.

[b/] Assumed to be 11 percent of annual average daily traffic.

[c/] No improvements would occur during the baseline period.

[d/] Although undefined, the utilization rate would be extremely low.

The projected baseline growth of Tonopah and Nye County will have little effect on the local transportation network. Beyond minor congestion and parking problems associated with additional vehicular traffic in Tonopah, the most probable effects would in fact be beneficial. A higher population base, coupled with the completion of the airport improvement program could lead to a return of commuter air service for Tonopah; while the expanded population could also lead to improved intercity bus service for Tonopah. Highways around Tonopah would still have excess capacity and would continue to provide at least "C" level service as shown in Table 15.

Recreation

The primary study area for recreation resources is Nye County. Recreational resources in Nye County center around public lands. There are over 1.7 million acres of national forest and 6.7 million acres of BLM-administered land in Nye County.24/ Additional recreation opportunities are also afforded by the Federal lands in the areas surrounding Nye County, e.g., the Toiyabe National Forest in Lander County. Individual, dispersed forms of recreation, such as off-road vehicle (ORV) use, backpacking, and camping are the primary activities on national lands. In addition, these lands also support bird, fish, and game populations, particularly deer, that provide the opportunity for hunting and fishing. Limited improved campsites are available.

In recent years, participation in recreation on the national resource lands in the Tonopah area has been increasing, especially in hunting and ORV use. Even though there is a vast amount of land, most of which is managed for dispersed recreation, the increased participation has resulted in some problems, e.g., a demand for more improved campsites. As of yet, these problems are not considered serious. However, the opportunities provided in the area are limited and have a restricted capacity to absorb additional use.47/

Naturally occurring geographic formations and prehistoric remains also offer scenic recreational opportunities for residents and tourists. These include the natural arch near Currant, the Lunar Crater Volcanic Field, and the Ichthyosaur State Park.15/

Ghost towns and other historic sites reminiscent of the old mining and western lifestyle are also plentiful in Nye County. Among the more well-known areas are Tonopah, Manhattan, Belmont, and Berlin. Other historic attractions in nearby areas are within easy driving distance of Tonopah. These sites are shown in Figure 6.15/

Most of the community recreational facilities in Tonopah are located at the two town parks and the schools. Servicemen's Memorial Park has an outdoor swimming pool, two tennis courts, and a picnic area. Tonopah Memorial Park is an older park with horseshoe areas, a playground, and picnic tables. The Tonopah High School athletic field is used for football, track, and summer softball leagues. The school also has a gymnasium an auditorium which are used for indoor activities. Other

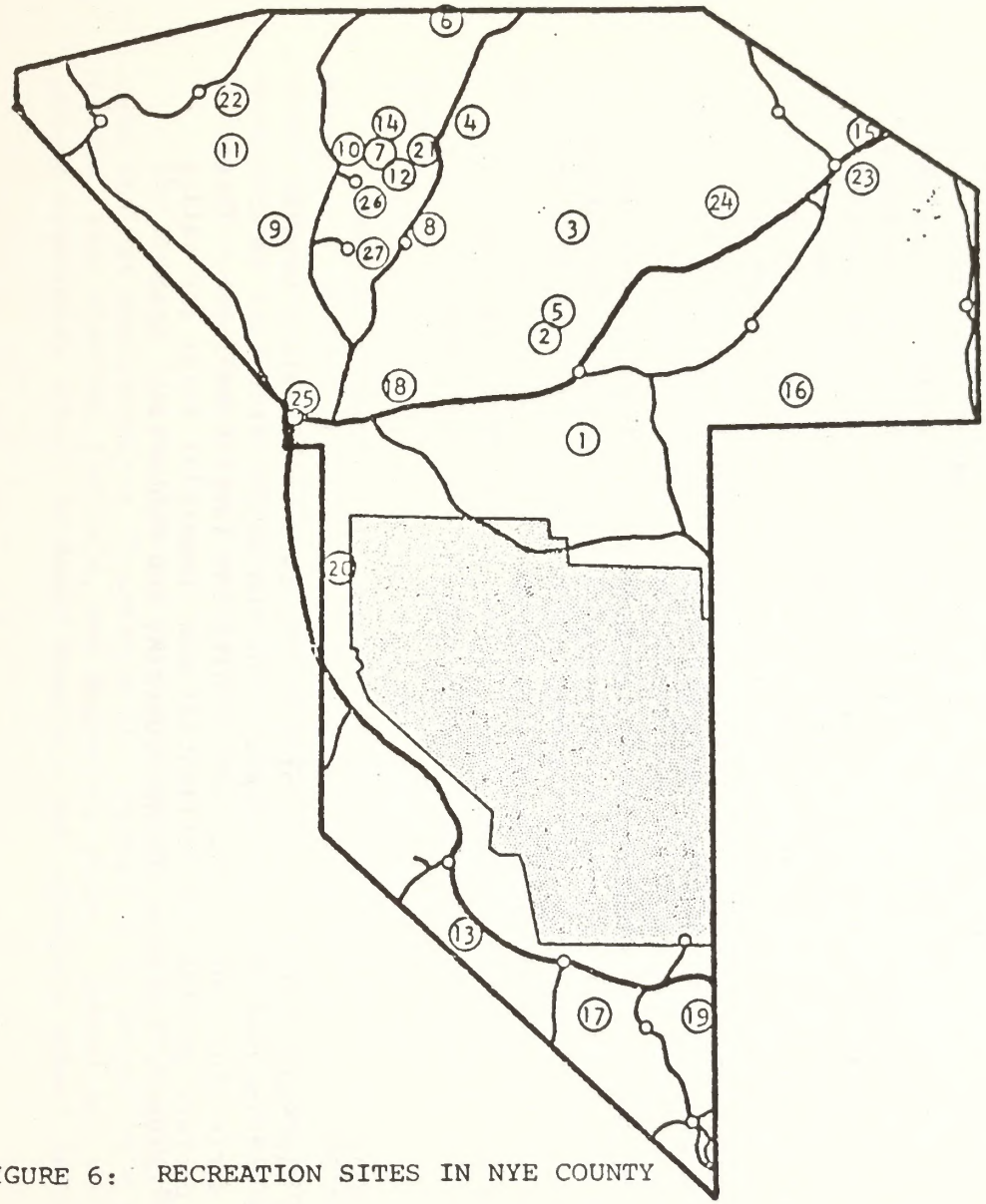


FIGURE 6: RECREATION SITES IN NYE COUNTY

Inventory of Major Recreation Sites

1. Lunar Crater Volcanic Field
2. Tybo Ghost Town and Charcoal Kilns
3. 4 and 6 Mile Canyon Charcoal Kilns
4. Diana's Punch Bowl--Monitor Valley
5. McIntyre Canyon--Charcoal Kilns
6. Stoneberger Basin
7. Jefferson Canyon Ghost Town and Campground
8. Belmont Ghost Town and Historic Court House
9. Peavine Creek--USFS Campground
10. Darrough's Hot Springs--Smoky Valley
11. Berlin-Geartville and the Ichthyosaur State Park
12. Pine Creek--USFS Campground
13. Big Dune
14. Shipley Creek
15. Currant Creek--USFS Campground
16. Cherry Creek--USFS Campground
17. Devil's Hole
18. Salisbury Roadside Rest
19. Recreation Complex near Mercury
20. Goldfield Joshua Forest
21. Northumberland Canyon and Caves
22. Ione Historic Site
23. Natural Arch at Currant
24. Meteorite Crater
25. Crescent Sand Dunes
26. Round Mountain
27. Manhattan

Source: Adopted from Raymond M. Smith, "General Plan - Nye County, Nevada," 1970, p. 38.

facilities include a tennis court at the old Air Force camp on the south end of Tonopah, and a target-shooting range south of town. There are several organized youth and adult leagues active in Tonopah fo rpublic participation in softball, baseball, an volleyball.9/ Participation by Nye County residents in boating, golf, or skiing requires travel to other areas outside the county.

The Juvenile Probation Department offers recreational opportunities for the youth of Nye County. Its programs include organizing outings for boating and camping, showing recently released motion pictures throughout the county, and organizing sporting events. The program supervisor reports that the activities have had excellent response.49/

Residents of Tonopah generally feel that recreation opportunities in Tonopah are very limited. There is much interest and participation in the organized activities, for example, the softball league. However, the various organized activities and those of the school must compete for limited facilities. The result is that participation in such activities is sometimes restricted, scheduling is difficult, and the recreation demands of the community are unsatisfied. Residents would also like to see additional private recreation opportunities, such as a theater, a bowling alley, and a sports-health-racquetball club.9/47/

The baseline growth in population would result in increased participation in individual, dispersed forms of activities, increased pressures on wildlife, and increased demands for local or community recreation programs and facilities. Staff members of the Federal agencies responsible for managing the national resource lands indicate that while such increases may result in some decline inthe recreation experience, e.g., overcrowding of campsites, the dispersed form of recreation would continue to dominate and the additional demands can be absorbed.47/48/ An indirect effect of increased crowding on local resources would be minor increased usage of recreation resources slightly further away such as the Toiyabe National Forest in Lander County.

Nye County has acquired 110 acres of land in the Tonopah area from the BLM, 40 acres of which are planned for additional recreation facilities, such as baseball and softball fields.14/16/ When completed, these facilities will allow for expansion of current programs to meet demands of existing and future baseline populations. There are no known plans to develop private commercial recreation facilities in the study area.

Big Smoky Valley

The Big Smoky Valley, north of Tonopah, is a broad valley between the Toiyabe and Toquima mountain ranges. The two major activities in the valley are agriculture and mining, with mining the largest employer. Three population centers provide the residential and commercial areas for valley residents: Carver's Junction, Round Mountain, and Manhattan. State

Highway 376 connects these population centers with Tonopah to the south and Austin (Lander County) to the north. The valley extends a distance of approximately 65 miles.

Round Mountain

The town of Round Mountain is a mining town as it has always been. Its residents are for the most part employees of the Round Mountain Mining Company and their families. The estimated population is 431.14/ Most of the homes in Round Mountain are mobile homes. Local facilities and services include a restaurant/bar, grocery store, two gas stations, and a post office.33/ A school building for grades kindergarten through eight with a capacity for about 85 to 100 students and an enrollment of 58 serves school age children from the valley and the town of Manhattan.6/ Also, there is a county library and a senior citizen center. Water is provided by the Shoshone Water Company, which has sufficient supplies to accomodate additional growth in Round Mountain.50/ Sewage disposal is provided on an individual basis using septic tanks.33/ Law enforcement is provided by one deputy sheriff who serves the entire valley.20/ Fire protection is provided by a volunteer fire department. The county recently constructed a new fire house which houses a fire truck and an ambulance. The ambulance is a volunteer service staffed by drivers and EMTs.33/

Mining is expected to increase in Big Smoky Valley, and in Round Mountain, if the price of gold remains high. While no population projections were made for Round Mountain, there appears to be vacant land available for development should growth continue. The county, the school district, and the mining company are currently arranging to build a 7,000-square-foot multi-purpose facility with a gymnasium, library, and several multi-purpose rooms.6/ The town and its facilities appear to be capable of meeting a moderate level of population growth should it occur.

A problem for additional growth is that the town is on BLM land, rather than privately owned land. The county is working with the BLM to acquire the land and to transfer land now occupied to the party paying taxes on improvements on the property. Remaining property would be retained by the county to accommodate future growth. If the county and the BLM complete the land transfer, land should be available for future growth.14/

Manhattan

Mining is the primary occupation for the population residing in Manhattan. In 1905, gold was discovered in the area, and the town was named Manhattan in hopes that it would rival its namesake in New York. However, the gold rush subsided and the population dwindled. According to a recent census, Manhattan's population is 70.

The Houston Oil and Mineral Company operates a gold mine near Manhattan that employs approximately 20 persons.51/ Manhattan is served by a post office, fire station, two bars, and a grocery store. School age children attend elementary school in Round Mountain and secondary school in Tonopah.

Because of the minimal impact of the proposed action on this community, population projections have not been calculated. Residential development may occur in Manhattan due to increased mining activity in the area in the future. Manhattan is located on BLM land, and a property transfer similar to the Round Mountain transfer is being negotiated.14/ Tonopah would continue as the economic center for Manhattan residents, though some minimal commercial development may take place in Manhattan in the future.

Summary--Affected Environment

The socioeconomic study area encompasses Nye County, the third largest county in the United States. Nye County is situated in the southern half of the State of Nevada and shares boundaries with seven Nevada counties as well as a western boundary with California. Within Nye County, primary emphasis is given to Tonopah, the major population center in proximity to the mine/mill site. Tonopah is located approximately 200 miles from the closest major population centers, Reno to the north and Las Vegas to the south. Tonopah serves as the county seat and is the largest population center in the County.

The population of Nye County, as reported in a special census taken in June, 1979, was 7,994, nearly a 43 percent increase over the 1970 population of 5,599. Tonopah population had grown by about 22 percent from 1,716 to 2,100, during the same period. The major growth center in the counnty since 1970 has been the Pahrump area which is located in the southern tip of the county approximately 60 miles northwest of Las Vegas. Immigration accounted for 83 percent of the county's growth with 17 percent of the growth resulting from natural increases. Estimations of the county's current age and sex groupings indicate an expansive population in which a large percentage are either children or persons of child-bearing age. Should these population groups remain in the county, natural increase will account for a growing portion of future population growth. Nye County and Tonopah populations were projected based on the assumption that recent population trends will continue. Projections indicate population in Nye County will reach 11,580 in the year 2001 and Tonopah's population will be slightly greater than 3,000.

Mining, agriculture, and tourist-related industries form the foundation of the Nye County economy. Increasing employment in these sectors, rising total employment and income levels, and increasing assessed property valuations in the county indicate that the economy is expanding. Employment in Nye County increased by 12 percent from 1970 to 1976, and unemployment has been consistently lower than unemployment in both Nevada as a whole and the nation. Per capita income data for 1974-1976 obtained from the State Employment Security Department show that while Nye County per capita income in increasing, it continues to lag behind both national and state figures for the same period. Gross average annual earnings by major sectors show that employment in the basic industries not only generate higher levels of income in the local economy, but through their support of other sectors they actually result in additional incomes being generated. Thus if basic employment continues to grow, the result would be higher total and average incomes in Nye County.

Nye County financial resources reflect an increasing assessed valuation, a relatively stable expenditure level, and outstanding bonded indebtedness of only 7.8 percent of available capacity. The town of Tonopah, although an unincorporated community, formulates a budget that is approved by the county commissioners. Since the county provides most of the public services and facilities, the town only funds limited programs. In the 1979-80 town budget the Tonopah Fire Department accounted for 73 percent of the town's total general fund expenditures. The town also has excess debt capacity at present. Both Nye County and the town of Tonopah have adequate financial resources to meet current needs and to accomodate future growth. However, recently enacted state legislation limiting local tax rates and increases in expenditures could hamper the ability of the town and county to finance new capital facilities or to increase existing service levels. Since no such programs are foreseen, such problems are not expected to occur.

The Nye County School District provides public education, kindergarten through twelfth grade, for most of the county residents and some residents from other counties. Total district enrollments increased 31 percent between 1974-75 and 1979-80, while the schools in Tonopah experienced a 16 percent increase. All schools in Tonopah are located on the same site and are considered as a campus. One building is used solely for elementary education while two buildings house grades seven through twelve. This campus has a capacity of approximately 630 students. The student enrollment will surpass the available capacity during the mid-1990's with additional capacity for 70 students needed by the year 2001. An additional 10 teachers will also be needed in the Tonopah schools to meet the increased demands. Given the long lead times available to plan for the increased enrollment, no problems are foreseen to prevent the district from meeting those needs.

In 1970, housing in Nye County consisted of 2,093 dwelling units. Of these, 1,813, or 86.6 present were occupied, of which 26 percent, or 476 were classified as inadequate. Available data indicate few significant changes in the housing situation since, 1970, although the number of mobile homes has increased dramatically during the period. According to local officials, the housing stock in Tonopah, has had few additions since 1970. Officials also indicate that the housing situation in Tonopah is very tight, with few units for sale or rent. An additional 337 dwelling units will be needed in Tonopah between 1980 and 2001 to provide housing for the projected baseline population growth.

The current land use plan for Nye County was adopted in 1970 and updated in 1978. The majority of land in the study area (94 percent) is managed by the Federal Government. The Bureau of Land Management manages about 58 percent of the county's 11,560,960 acres. The predominant land use in the county is livestock grazing, both on private ranches and Federally controlled land. The baseline scenario will see additional land in Nye County being used for mining purposes as well as for residential and commercial development. One hundred and twenty acres of additional land will be developed in Tonopah by the year 2001 as a result of the baseline growth.

The adequacy of facilities and services for the current population, and as they are affected by the population growth in Tonopah, is briefly summarized below:

Health Care	Facilities have excess capacity for the existing population, and baseline population growth may result in incrased occupancy rates at the hospital, increases in health personnel, and general increases in the use of existing facilities.
Law Enforcement	New facilities are needed in Lathrop Wells and Gabbs,, the dispatch system is inadequate, but this is being improved, and some vehicles need replacement. Baseline population growth would increase the demand for law enforcement services. but these demands can not be met.
Fire Protection	Services are adequate for the existing and baseline population.
Water	Supply and distribution systems are adequate for the existing and the baseline needs.
Wastewater	The existing treatment plant is inadequate and a new plant, currently in the planning stages, will be completed in 1980. Future population growth would create problems without the new plant.
Solid Waste	The county landfill is adequate for the current population, but will reach capacity in 1990. Plans are already being made to expand the site onto an adjoining site.
Utilities	Electrical, telephone, and propane gas suppliers indicate adequate capacity is available for the baseline poplation growth.
Recreation	Tonopah needs baseball fields for the current population; no other major facilities will be required by the baseline population growth.
Social Services	Existing services are adequate and will continue to be in the future.
Community Facilities	The post office is out of available post boxes and needs additional staff. Baseline population growth will magnify these needs.

In summary, the future environment without the proposed actions is expected to result in population increases of 3,586 and 945 persons for Nye County and Tonopah, respectively. While such increases will create additional demands for housing, commercial services, and public services, no major problems which would impair or restrict the environment's ability to adjust are anticipated.

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CHAPTER 3

ENVIRONMENTAL CONSEQUENCES

Introduction

The following discussions present the probable socioeconomic effects on the local environment which would result from the proposed action. The discussion of impacts places primary emphasis on the socioeconomic topics or communities which will experience significant impacts, with less detail concerning areas where minor or negligible effects are expected. The most comprehensive analysis involves Nye County, and the town of Tonopah.

The assessment of potential impacts begins with a brief discussion of several fundamental assumptions of this analysis. The impacts associated with the mine/mill complex are then presented, followed by those of the transmission line and the impacts associated with each of the four alternatives presented in Chapter 1. These are followed by discussions on the trade-offs between short-term and long-term productivity and other environmental considerations, the commitment of resources to the project, and a summary of the probable effects associated with the proposed action.

Assumptions

The socioeconomic impact assessment of the proposed action is founded upon several fundamental assumptions. These broad assumptions, listed below, determine the overall structure of the assessment. Specific analytical assumptions which deal with only a particular segment of the analysis, or the methodologies employed therein, are addressed in Chapter 6 of this report.

- Social and economic impacts result from changes in the established socioeconomic environment. The more dramatic the changes, the greater the potential for significant impacts.

- The assessment of the significance of socioeconomic impacts considers the magnitude and intensity of the effects, as well as reflecting local conditions, e.g., low hospital occupancy rates. However, given that few quantitative measures of socioeconomic significance are available, such assessments are also subjective, reflecting the backgrounds, perceptions, and preferences of the individual, and the professional judgment of the author. Therefore, the reader may differ in his/her assessment of the significance of a particular impact.

- Impacts may be either beneficial, adverse, or both.

- Changes in local employment and population levels are the primary impacts affecting socioeconomic structures, leading to secondary, indirect impacts. For example, such growth introduces new social groups, creates additional demands for public facilities and services, and alters the current market structure for goods and services, etc.

- Local inputs are relied upon, wherever possible, to determine the adequacy of local facilities and services, the need for additions or improvements in those services and facilities, and the significance of potential impacts.

EFFECTS OF THE MINE/MILL COMPLEX

Employment, Population, and Income

Employment

The construction of the mine/mill complex would span a two-year period from late 1979 to late 1981. During that time, the estimated size of the construction workforce would increase from 43 in 1979 to a peak of 660 in the third quarter of 1980, then declining to the end of the construction period. The permanent operating workforce would also begin to come on-line in late 1979. These employees would be in addition to the exploration personnel currently working on site. Beginning with 8 employees, permanent employment would increase steadily to 400 employees, the level expected to be maintained over the estimated 20-year life of the project. This schedule would result in a peak of 929 total direct employees in the last quarter of 1980.1/

As described in Chapter 2, increases in employment in basic sectors, such as mining, indirectly result in increased employment in the service sectors. Thus, the total increase in employment would be the sum of the project-related employment and the induced employment. This induced, or secondary employment would provide additional goods and services to satisfy the increased demands of the mine/mill, its employees and their families, e.g., additional retail shopping establishments. The growth could also induce new services, like a bowling alley or movie theater, to begin operations. The secondary employment increase would range from an average of 200 during the construction period to 600 throughout the operating phase of the mine/mill.2/

The projected employment increases related to the proposed action are shown in Table 16. The figures were derived using the assumptions and employment multipliers detailed in Chapter 6. Employment multipliers of of 1.5 and 2.5 were used to estimate the increases in total employment associated with the construction and operating workforces, respectively. The lower construction-related multiplier reflects the temporary nature

Table 16

PROJECTED EMPLOYMENT AND POPULATION ASSOCIATED WITH THE MINE/MILL COMPLEX

Year	*Average Annual Mine/Mill Employment*		*Total New Employment*			*Local Employment*	*Nonlocal Employment*	*New Households*	*New Population*
	Const.	*Perm.*	*Const.*	*Perm.*	*Total*				
1980	388	141	582	289	871	87	789	741	1,632
1981	276	345	414	770	1,184	118	1,066	951	2,589
1982	0	400	0	975	975	98	877	731	2,252
1983	0	400	0	1,000		100	900	750	2,310
1988	0	400	0	1,000		100	900	750	2,310
1993	0	400	0	1,000		100	900	750	2,310
1998	0	400	0	1,000		100	900	750	2,310
2001	0	400	0	1,000		100	900	750	2,310

Source: Abt Associates Inc., 1980.

of the construction employment and the lower level of local spending commonly associated with construction activities, which supports less economic expansion and therefore leads to smaller increases in employment.

As shown, the increase in total employment would average nearly 1,000 employees from the beginning of the project through the end of production. This would be significant in that it represents a 35 percent increase over the 1976 employment level of 2,833. Given the almost immediate achievement of the employment increases, and the magnitude thereof, this increase is especially significant. Although not shown, total employment would peak in late 1980. At the time, the sum of the construction, operating, and service employment would exceed 1,350 persons, i.e., the 871 direct and indirect employees shown in Table 16, plus the 120 transmission line workers (discussed later), plus 400 employees associated with the proposed action, over and above the average annual figures shown. Although this peak would be brief, it would adversely affect the service sector's ability to cope with the demands of a rapidly growing population.

Given the extremely rapid growth in employment, the magnitude of the projected increase, and the size of the current labor force, the local economy would not be able to respond quickly or completely to the increased demand for labor. Thus, a large number of immigrants would be needed to fill the job opportunities. However, even with immigration some shortages of labor would occur, especially during the peak employment period. The service sector would be the most significantly affected, having difficulty competing for labor because of the relatively high wages paid elsewhere. As immigration continued, this situation would be alleviated.

An estimate of the total expected number of immigrant employees was obtained by assuming that 10 percent of the total new employment opportunities would be filled by current Nye County residents (see Table 16). The remaining positions would be satisfied by immigrants.1/ Although the share of positions expected to be filled by local residents is quite low, it seems realistic given the historically low unemployment rates in Nye County. The locally supplied labor would be comprised of young people entering the labor force for the first time, persons from the ranks of the underemployed, and those persons who had not been seeking work actively but who would now be induced into the labor market. Finally, some employees may be attracted from other jobs in the area. However, this merely creates a different job opening which must now be filled. In any case, unemployment in Nye County would continue to remain low, with job opportunities available for those desiring work.

The service sectors that would show the greatest increases in employment (and sales) would be retail trade, personal services, finance, insurance, and real estate. The public utilities sector would also benefit from an increased number of customers and revenues; however, employment in that sector is not as directly related to the population it services.

Following the end of production at the mine/mill, another series of significant employment changes would occur in Nye County. Based on current estimates of the recoverable reserves, production would cease

in the year 2001. At that time at least the 400 employees associated with the mine/ mill would become unemployed. This could in turn lead to decreases in total employment of up to 600 employees in the service sectors. Whether or not this occurs depends on the extent to which the Nye County economy has continued to grow and diversify. If alternative employment opportunities exist for the displaced workforce, the changes would be manifested as a shift in employment between firms and sectors, not as a change in the level of employment, and the impact would be minimal. On the other hand, assuming a worst-case scenario, no alternative opportunities would be available, higher rates of unemployment would result, leading to an out-migration of some of the labor force, and a decline in population, i.e., Nye County would return to the baseline. This "bust," if it occurs, would complete the "boom" cycle set up by the proposed action. As in the past, Nye County would survive this cycle, but not without enduring another series of impacts.

Population

Workers entering the area to satisfy the employment demands related to construction and operation of the mine/mill complex would increase the population in the region, especially in Tonopah. The total increase in population would exceed the number of immigrating employees as workers brought their families with them. Typical household characteristics, e.g., the number of single and married workers, associated with migrating workforces (see Chapter 6) were used to estimate the number of immigrating households and the total population influx. These figures are shown in the last two columns of Table 16.

The effects of the proposed action on population were determined based on the assumption that 95 percent of the total population influx would reside in Nye County (90 percent in Tonopah). Table 17 gives the baseline population projections, the increment due to the proposed action, and the total population. The population impacts would be significant over the entire life of the project. Beginning in 1980, the mine/mill complex would result in population increases of 1,550 and 1,470 persons, or 19.0 and 68.5 percent increases over the baseline populations, for Nye County and Tonopah, respectively. By 1983, the project-related population increases would be 2,195 and 2,080 for Nye County and Tonopah, respectively, remaining constant at those levels throughout the productive life of the project. Figure 7 is a graphical representation of these estimates. As shown, there would be a brief population peak in the last quarter of 1980, coinciding with the temporary peak in employment.2/

As discussed earlier, the end of production at the mine/mill complex will result in the unemployment of 400 workers. Depending upon the availability of alternative employment opportunities for those unemployed workers, unemployment could increase to the point where out-migration begins. Given the direct relationship between employment and population, such out-migration of the labor force will result in a greater decline in total population. Although the probability or magnitude of such a decline is beyond the scope of this study, assuming a worst-case scenario, it would be severe, i.e., a bust, with total population declining to the baseline levels. This would create another round of impacts, both positive and adverse on the socioeconomic environment, requiring adjustments and responses by the political, social, and economic structures in Nye County.

Table 17

POPULATION BASELINE AND WITH THE PROPOSED ACTION,
NYE COUNTY AND TONOPAH a/

Year	*Nye County*			*Tonopah*		
	Baseline	*Project Related*	*Total*	*Baseline*	*Project Related*	*Total*
1979	7,995	N.A.	7,995	2,100	N.A.	2,100
1980	8,160	1,550	9,710	2,145	1,470	3,615
1981	8,325	2,460	10,785	2,190	2,330	4,520
1982	8,490	2,140	10,630	2,230	2,025	4,260
1983	8,645	2,195	10,850	2,275	2,275	4,355
1988	9,460	2,195	11,655	2,490	2,080	4,570
1993	10,275	2,195	12,470	2,700	2,080	4,780
1998	11,090	2,195	13,285	2,195	2,080	4,990
2001	11,580	2,195	13,775	3,045	2,080	5,125

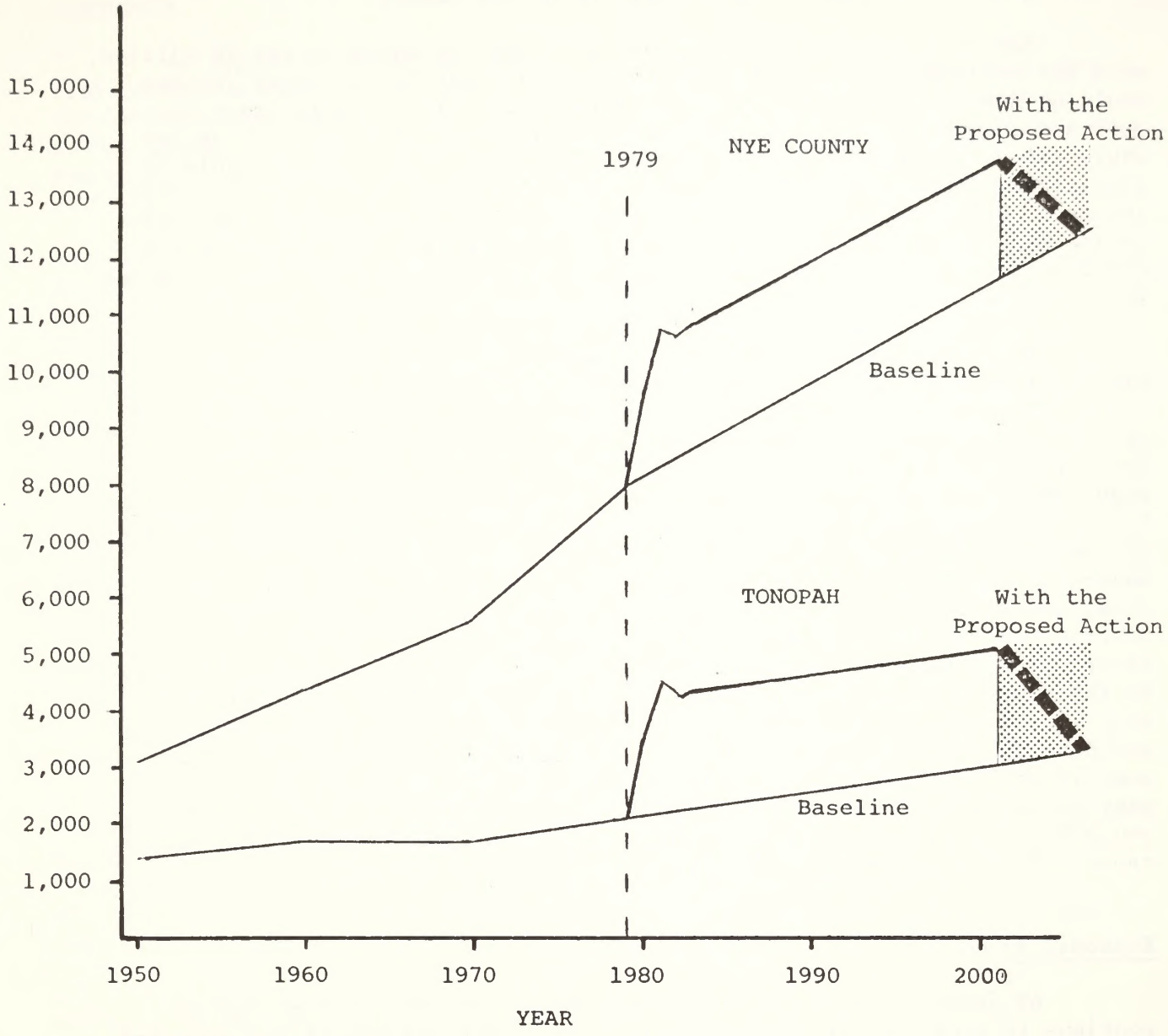
a/ These estimates assume no permanent population increase associated with the transmission line.

N.A. = Not Applicable.

Source: Abt Associates Inc., 1980.

FIGURE 7

Baseline Population Trends and the
Effects of the Proposed Action
Nye County and Tonopah



▒ - The end of production at the mine/mill will begin a period of uncertainty for Nye County and Tonopah. Depending upon the availability of alternative employment for the unemployed workforce, outmigration could occur. The shaded area represents the possible range of population after production ends. Assuming the worst case, population would return to the baseline, as shown by the hashed line.

SOURCE: ERT Socioeconmic Technical Report, 1980

Income

As noted in Chapter 2, Nye County lags behind the state and the nation in annual per capita personal income. It also shows that average annual earnings in the mining and construction sectors are the first and third highest in the state, respectively.3/ Assuming that the same relationship holds for Nye County, the construction and operation of the mine/mill complex would stimulate the local economy in that both the relative and total incomes paid to the employees would be high, contributing to the overall economic welfare of the county.

Annual payrolls for the permanent workforce would exceed $8 million, once the employment level has stabilized. Some portion of these incomes would be used to purchase goods and services locally, creating more new jobs and incomes in the study area (see Chapter 6). The indirect income would exceed $10.4 million annually.2/ The $18.4 million total would be significant, representing an increase of 53.2 percent over the 1977 total income of Nye County. During the two-year construction period, the total estimated construction payroll would exceed $26 million.1/ Although the construction payroll would also generate indirect income, the amount is not known.

An indirect effect of the high wages paid at the mine may be to raise all wages in the area, as employers compete for a limited labor force. This would be particularly true during the early construction and operational phases when shortages of labor are most likely to occur. However, as immigrants move in to fill job opportunities, wages would stabilize as the labor force increases, but not necessarily at their prior levels. Using income is an indicator, the increased income would increase the average standard of living in Nye County. At the same time, increased wages would inflate the costs of goods and services, including housing, food, and clothes. Since the increase in wages would not be uniformily distributed, whereas the increased cost would affect all groups, certain groups of people, e.g., those on fixed incomes, would be adversely affected by the proposed action. These people would be forced to adjust and cope with the higher cost of living. Examples of the types of adjustments which would be necessary include changing one's spending patterns by eliminating some items, using savings, or leaving the area. While it is not known how many people would be adversely affected, or how significant the effects would be, the effects would be significant to the individual if it necessitated a change in his/her lifestyle.4/

Economic Base

As indicated previously, the Nye County economy is expected to continue to grow between 1980 and 2001 even in the absence of the proposed action due to an expected increase in mineral exploration and development activity in the county. The proposed action would result in a significant increase in the county's mining sector. The 400 permanent employees at the complex alone would represent a 78 percent increase over the 510 employees

employed in the mining sector in 1976. This increase in employment is in turn expected to generate an additional 600 positions in the non-basic or service sectors. The service sectors which would be primarily affected are: wholesale and retail trail, e.g., grocery stores, clothing stores, etc., and the finance, insurance, and real estate sector. The public utilities industry would also experience significant increases in the number of consumers and sales revenues. Such increases do not however necessarily translate into increased employment since so much of the capacity in the industry is provided by physical plant rather than human resources.

An indirect effect associated with the proposed action would be the continuing dominance of mining as a portion of the total economic base. This would reduce the economy's dependence on tourism and have a stabilizing effect on the economy, since a large proportion of the economy would be somewhat insulated from the seasonal variations associated with tourism.

Another indirect effect of the economic expansion resulting from the proposed action would be an expansion and diversification of the local service sector. This expansion would have three components; (1) increases of current services to meet the demands of increased population for those services, (2) increases in new services, heretofore not locally available because of an insufficient population base, and (3) an increased capture of retail sales expenditures in the local trade area, made possible by 1 and 2 above, which are now lost to larger, but more distant trade centers.

These effects are positive, for the most part. An expanded service sector would contribute to the overall welfare of the local economy. If however, the economy should become too dependent upon mining for its basic employment, it could be subject to another "bust", as has occurred before, if mining activity declined in the county.

Financial Resources

The proposed action would have both significant beneficial and adverse impacts on Nye County financial resources, based upon projected changes in revenues and expenditures relative to the 1979-1980 county budgets. Revenue increases would result from the revenue contributions of the mining company, its employees, and the indirect employment it supports. These contributions would be primarily in the form of property taxes, net proceeds taxes on the production of the mine/mill, and sales taxes. At the same time, the increased population would increase the demand for public services resulting in increased expenditures. Given the limitations of available data, only the effects which can be reasonably estimated are addressed here. In order to assess the net impact, minimum levels of revenues were calculated and compared to the increase in expenditures estimated by taking the 1979-80 per capita expenditures times the increase in population.

At the local level, the primary impacts of the proposed action would be the increased property taxes based on the assessed valuations on the equipment, buildings, and other improvements at the mine/mill; the net proceeds taxes on the output of the operation, and the sales taxes collected on local purchases. In addition to these, property tax and sales tax proceeds would also be collected on the residential and commercial

development which would accompany the expected growth in population. Based upon an estimate of assessed valuation at 35 percent of market value, the existing tax rate of $1.63/$100 of assessed valuation, the mining company's estimate of its annual property tax liability for the mine/mill, i.e., $55.2 million, and an increased valuation of $7.1 million for the residential development, e.g., 263 new single family homes valued at $50,000 each, 113 new multi-family units valued at $25,000 each, and 374 mobile home lots valued at $4,500 each, the annual property tax collections would be approximately $1 million annually. Additional property tax revenues would also be derived from new commercial development which would occur as a result of the proposed action. The value of such development was not calculated for this analysis. These collections would begin in 1980 and would continue to increase until the construction of the mine/mill is complete, the housing needs of the population influx are met, and the service sector has adjusted. Also, since property values tend to increase over time, the property taxes would also increase, and the $1 million figure would be the minimum level of increased taxes generated by the proposed action. Using the above estimate, the proposed action would result in a 58.7 percent increase over the 1979-80 property tax collections of $1,704,905.1/2/5/

The net proceeds tax on the production of the operation would be taxed at the same rate as real property. Based upon the planned production schedule for the mine/mill, the net proceeds taxes would exceed $700,000 annually once the full production level is achieved. As with property taxes, this amount would increase over time due to the effects of inflation.1/2/

A final source of tax revenues related to the proposed action would be the increased level of sales tax collections. These revenues would be generated by the local purchases of taxable products by the mining company, its employees, and the secondary employment it supports. The potential level of sales taxes which would be generated could be significant relative to current collections, but they would be less important relative to the overall budget. Since the level of local purchases is uncertain, no estimates of the sales tax revenues were derived.

This analysis is admittedly simplistic, in that there are tax revenues beyond those discussed above which will be generated by the proposed action. Some of these are non-local, e.g., Federal income taxes, others are generated locally but accrue to the state, etc., but in general, the proposed action would generate a minimum of $1.7 million annually, following the completion of all construction and economic adjustments. This is a significant beneficial impact representing a 25.3 percent increase over the 1979-80 revenues of $6.3 million.5/

Another positive impact of the proposed action would be its affect on the bonding capacity of the county. As the assessed valuation increases, the county's bonding capacity would also increase at a rate equal to 10 percent of the increase in assessed valuation. However, given the fact that Nye County has only used 7.8 percent of its current capacity, the additional capacity would only be of limited significance.

The proposed action would affect expenditures for both operating and capital expenses. The primary impact of the proposed action on expenditures would be a significant increase in Nye County operating expenses. Based on a continuation of current per capita expenditures of $617, the proposed action would require an increase in expenditures of $1.35 million annually, caused the population influx of 2,195 persons. These expenditures would cover salaries, operations and maintenance expenses for public services. The $1.35 million is a significant impact, representing a 23.5 percent increase over current expenditures.

This estimation actually overstates the expenditures impact somewhat because the $617 per capita includes an allocation for current outstanding bonded debt obligations. These expenditures would not necessarily continue with the proposed action because no new capital facility requirements have been identified as a result of the proposed action.2/

Comparing the projected increases in revenues with the increases in expenditures shows that the proposed action would have a net beneficial impact on Nye County's financial resources. However, experiences in other areas have shown that even though there may be a net financial benefit over the life of the project, there could still be significant adverse impacts on financial resources during the first years of the project. The impact would be a need for additional expenditures to meet the demands of the increased construction-related population which precede the accrual of additional revenues. In this instance, the increases in assessed valuation and net proceeds taxes would accrue only as construction proceeds and the mine/mill begins operation. This revenue lag would strain Nye County's ability to provide needed services during the construction and early operating periods.

The problem of response lags would be compounded by the taxing and expenditure limitations discussed in Chapter 2 (see also Chapter 6). Although the spending limitations allow for increases in expenditures for population growth and inflation, they do not allow for expected population growth. In a rapid growth situation like the one expected in Nye County, this can seriously affect the county's ability to provide expanded services, even if the revenues are available. In Nye County such a situation would mean that some services would have to be reduced for several years, until additional revenues were available and the expenditure limit caught up with the population increase.

These limitations only apply, however, to expenditures which are funded from property taxes. Expenditures which are funded from other sources, e.g., Federal grants, are exempt from these limitations. An example of this is the hospital, which receives about 70 percent of its revenues through patient fees. Thus, only the remaining elements of its budget are subject to the restrictions imposed by the legislation. Local expenditures that would be most affected by the spending limitation are those for county administration (clerk, assessor, et. al.), the sheriff's department, the courts, other general expenses, roads and capital projects. These functions rely heavily on property tax revenues, which do not offset the spending limit like federal monies and other exclusions.

Capital projects are funded from the county's budget through property tax revenues, grants and loans, and bonded debt. The limiting factor of either method of financing capital projects is the combined unit tax rate limit. Since Nye County is currently taxing near the limit, an increase in assessed valuation or a reallocation of unit rates among the county, the school district, and the towns would be required if further capital financing were needed. As discussed earlier, the proposed action will result in increased total assessed valuation for the county. Also, since no new required capital-facilities projects have been identified, capital financing would not be a problem. If capital improvement programs are later identified as being necessary, financing problems could occur, but only if the increased assessed valuation or other revenue adjustments are unable to rovide sufficient revenue sources. This does not appear likely.

The joint effects of the state limitations on expenditures and tax rates would be more severe impediments to the county's ability to respond to rapid population growth than would the current financial position of the county. Assessed valuation will be adequate to finance any expenditure increases; however, the spending limitations, which lag behind population growth, will limit the county's ability to respond adequately.

For the town of Tonopah, the proposed action would also have both beneficial and adverse impacts similar to those for Nye County. The primary source of increased revenues would be from property tax assessments on the proposed residential development and any commercial development. As a minimum, this amount would equal $93,000 annually, nearly a 111 percent increase over current property tax revenues, and an increase of 18.5 percent in total revenues. This estimate is based on an increase in the town's assessed valuation of $7.16 million and a tax rate of $1.30/$100 of assessed valuation. The effects on total assessed valuation and bonding capacity would be of a similar magnitude.2/

Tonopah's expenditures would also increase as a result of the proposed action. Current per capita general fund expenditures in Tonopah equal about $63/peron (after subtracting the self-supporting program costs, such as the Tonopah Public Utilities). Assuming a continuation of the spending patterns, and a maximum increase of 2,080 persons, Tonopah's expenditures would increase approximately $131,000 annually. While the proposed action would not contribute as much revenue as the resulting increse in expenditures (based on this analysis), the impact of proposed action would not be significant. This conclusion is based upon the fact that Tonopah's services are self-supporting. Therefore, the use of those services and facilities by the project-related population would contribute revenues to meet the increased expenditures.2/

The major problem the town could face in providing the additional services is the spending ceiling imposed by the state. The formula for increasing expenditures will not allow the town to estimate population growth before it occurs, but will only account for the current population. The short time frame in which the new population would enter the areas

would likely exacerbate the lag effect in the short run; eventually, however, expenditures would catch up with the increased demands. Since the town's general fund is not financing a wide range of services at present; the county provides for the for maintenance of streets, law enforcement, and TPU provides water, wastewater, and solid waste services, the proposed action would not create a significant burden on Tonopah's financial resources.

Schools

Enrollment projections for the Tonopah enrollment area of the Nye County School District indicate that the proposed action would increase total enrollment to 1,169 by 1981-82, from its current level of 493. These projections, carried through 1984-85 are given in Table 18 and show some stabilizing of enrollment after the 1981-82 peak. The enrollment increases would create significant adverse impacts on the school system. These impacts would be inadequate facility capacity and short-term financial hardship. Projections of enrollment were not made beyond 1984-85 because enrollment impacts associated with rapid mining development are the most critical during the initial influx of population. Once the workforce has stabilized, actual enrollment figures, by class, would be available, providing more precise data for planning by the school district.

Existing Tonopah schools have a capacity of 630 students. Under the baseline projections, facilities would be at capacity by the year 2000. With the proposed action, enrollments would exceed capacity by 250 students sometime during the 1980-81 year and by 540 in 1984-85. Thus, additional facilities, primarily classrooms, would be required. Temporary capacity can be provided using modular classrooms, or by using double session scheduling, however, a short-term solution would require the construction of a permanent facility. The school district is currently considering a bond issue which would include such a facility. However, even if the bond issue is approved, the school would not be ready for some time.6/ A portion of the land acquired as a part of the proposed action will be dedicated for public use, e.g., educational facilities, which could possibly be used for a site for a new school facility.

Another significant direct impact of the proposed action would be an increase in staff. At a minimum this would include 22 additional teachers, compared with 24 currently. Administration personnel and maintenance staff increases would also be needed, but the numbers are not known. A factor which could aggravate the situation would be continued difficulty in recruiting teachers to Tonopah due to the lack of housing, which would have other indirect impacts on the schools, e.g., overcrowded classrooms and high student/teacher ratios, which would adversely affect the quality of education. Assuming a worst-case analysis, it is assumed that Tonopah would experience difficulty in attracting teachers and the indirect impacts on schools previously described would be considered significant.6/

Table 18

SCHOOL ENROLLMENTS, NYE COUNTY SCHOOL DISTRICT, TONOPAH ENROLLMENT AREA, 1979-80 to 1984-85

Enrollment Levels With the Proposed Action	School Year																	
	1979-80			1980-81			1981-82			1982-83			1983-84			1984-85		
	K-6	7-12	Total	K-6	7-12	Total	K-6	7-12	Total	K-6	7-12	Total	K-6	7-12	Total	K-6	7-12	Total
Construction	--	--	--	175	75	250	125	53	178	--	--	--	--	--	--	--	--	--
Permanent	--	--	--	80	54	134	288	192	480	365	243	608	374	250	624	374	250	624
Total Project Related Enrollment	--	--	--	255	129	384	413	245	658	365	243	608	374	250	624	374	250	624
Baseline	228	265	493	235	266	501	240	271	511	245	276	521	249	282	531	254	286	540
Total Enrollment	228	265	493	490	395	885	653	516	1,169	610	519	1,129	623	532	1,155	628	536	1,164

SOURCE: 1979-80, Nye County School District,
1980-81 to 1984-85, Abt Associates Inc., 1980.

The district's financial resources would be affected in three specific areas: operation and maintenance expenditures, revenues, and capital outlays. Operating and maintenance expenses are limited by a state-imposed ceiling adjusted for enrollment growth, the consumer price index, and assessed valuation. Enrollment growth adjustments respond directly to changes in enrollment since actual enrollment as of the beginning of the school year is used in the calculations. Therefore, the current enrollment figure is one of the major factors in determining allowable expenditures. In addition, should enrollment continue to grow throughout the year, adjustments can be made which would allow for expenditure increases accordingly.

The impact on the school district's operating expenses would be significant. Assuming a continuation of current spending patterns, i.e., approximately $2,238 per pupil per year, the proposed action would result in a peak increase in operating expenditures of $1.48 million in 1981-82, an increase of 37 percent over the current budget. These costs would go to pay for the increased staff salaries, administrative expense, supplies, etc.2/

In addition to the operating cost increase, estimated capital costs would be $3 million for the 22 new classrooms needed.6/ Assuming a bond issue would be passed to cover this cost, the proposed action would more than double the district's total bonded indebtedness to $5.35 million, from its current level of $2.35 million. However, this would still be only 25 percent of the district's bonding capacity, disregarding any increases in bonding capacity which would result from the proposed action.

The school district's assessed valuation base is the same as Nye County. Therefore, the increase in assessed valuation associated with the proposed action would be identical, i.e., $62.3 million. Based upon the district's current tax levy of $0.45/$100 of assessed valuation, the proposed action would generate an additional $280,350 of property tax revenue, an increase of 60 percent over current property tax collection. The increase in assessed valuation would also increase the bonding capacity of the school district by $9.35 million. In all cases, the impacts are considered significant, relative to current levels of the same measure.

As a result of the proposed action, the Nye County School District would also receive additional state funds as part of the state's support programn for education. The objective of the program is to provide funds to the schools to replace property tax revenues which were lost when the legislation establishing maximum combined tax rates reduced the maximum levy for school districts to $0.50/$100 of assessed valuation from the previous level of $1.50/$100 (see Chapters 2 and 6). During the current school year the state's support equaled $1,539 per pupil. Assuming the same rate and a peak project-related enrollment of 638 students, the state's support of education exceed $980,000 in 1981-82.

A final element of the proposed action's impact on the school district's financial resources would be its relationship to the overall county in terms of the combined taxing rate. The limit of $0.50/$100 of assessed valuation relates only to the revenues which can be

collected from property taxes to meet operating and maintenance expenses. Levies to meet debt service obligations do not come under the $0.50/$100 limit, as long as the total levy from all taxing bodies is below the maximum of $3.64/$100. Even then, there are provisions in the law which modify the limit under certain circumstances. In any case, there are many opportunities for the various taxing jurisdictions in Nye County to work together to derive maximum financial benefit from the propsed acion to offset the associated costs.6/7/

As with population and employment, school enrollments in Nye County would decline at the end of production, i.e., 2001. Under the worst-case analysis, all population, both directly and indirectly supported by the proposed action would migrate out of Nye County. A number of children enrolled in Tonopah schools in the year 2001 would leave and Tonopah's enrollment would return to baseline levels. Depending upon the magnitude of the reduction, and the period of time over which it occurs, there would be a series of adverse impacts on the school system. Assuming a worst-case analysis, the adverse impacts on the school system would include excess capacity, staff reduction, and a reduction in property tax revenues to meet operating and debt service expenses. If these impacts occur, they would be considered significant adverse impacts to the school system.

Housing

Based on 1970 census data and conversations with residents and local officials, it is apparent that the existing housing stock in Nye County will not meet the housing demands of project-related population. The cumulative housing needs from 1980 to the year 2001 for Nye County are shown on Table 19. Table 20 shows the distribution of project-related housing requirements, by type, during each period. These figures are based on the assumption that one new unit will be needed for each new household. (The number of project-related new households entering the area from 1980 to the year 2001 are shown in Table 16, Chapter 3.) The numbers of dwelling units by type needed to satisfy the housing needs of the projected related population growth were estimated using the following assumptions on housing preferences.

Construction

20% would reside in single-family homes.

15% would reside in multi-family homes.

40% would reside in mobile homes.

25% would reside in other dwellings, including travel trailers, boarding houses, etc.

Permanent

25% would reside in single-family homes.

15% would reside in multi-family homes.

60% would reside in mobile homes.

The number of dwelling units required in each year was obtained by multiplying the number of construction and permanent households times these percentages. The results were added together to give the total number of dwelling units needed to satisfy the project-related demands.

Table 19

TOTAL NEW HOUSING DEMAND, BY TIME PERIOD, WITH THE PROPOSED ACTION

Year	Baseline Demand	Project-Related Demand	Total Demand	Estimated Supply[a]	Excess Supply[b]
1980	59	741	800	221	(-579)[c]
1981	59	210	269	95	(-174)
1982	59	0	59	95	36
1983	59	0	59	95	36
1984-1988	291	0	291	475	184
1989-1993	291	0	291	475	184
1994-1998	291	0	291	475	184
1999-2001	173	0	291	285	112
TOTALS	1,281	951	2,233	N/A	N/A

[a]Assumes a worst-case analysis.

[b]This column is not directly comparable to other figures because it shows the relationship between supply and demand for a given year, but does not reflect the housing market over time, i.e., taking into account any shortage or surplus from the previous year.

[c]The numbers in brackets indicate a shortage of that number of dwelling units.

Table 20

DISTRIBUTION OF DWELLING UNITS BY TYPE, FOR THE PROJECT RELATED HOUSING NEEDS, NYE COUNTY

Year	Single-Family	Multi-Family	Mobile Homes	Other[a]	Total
1980	181	111	318	131	741
1981	277	143	438	93	951
1982	256	110	365	0	731
1983-2001	263	113	374	0	750

[a]"Other" includes motels and other lodging places, travel trailers, etc.

[b]The decline in the total number of dwelling units needed as a result of the proposed action corresponds to the transition from the construction to the operational phases of the mine/mill. The decline is brought about by the decline in "other" units which more than offset the increases in the number of permanent dwelling units.

Housing demands will peak in 1980, during the construction period. At this time approximately 741 additional dwelling units will be needed. Since the housing market is already tight, project-related demands would create temporary housing shortages, driving up rents and sales price of homes. During that time, the workforce would be made up primarily of temporary construction workers, and therefore a high percentage of the units needed would be for motel rooms, lodging places, and travel trailers (see Table 20). After 1980, the transition between the construction and operating phases would occur and the housing demands would shift to reflect a greater demand for mobile homes. Thus, while Table 19 shows that no additional units would be needed due to the proposed action, Table 20 illustrates that the housing market will remain active through 1983 to accomodate the shifting demands.2/

Given the current tight housing market in Tonopah and the lack of a developed construction industry of sufficient scale to rapidly develop sufficient housing, the proposed action could create a severe housing problem in Tonopah. The problem stems from the amount of housing needed and the short time frame available to develop adequate housing. Because of these problems, a worst-case analysis was performed to analyze the total housing market.

The assessment of the housing market uses the housing needs discussed above and worst-case assumptions regarding the supply of housing. It was assumed that the annual average housing production capacity of Nye County will continue to be 95 units per year (see Chapter 6). It was further assumed that the housing units being developed by Anaconda would be in addition to the existing capacity. These units were assumed to be completed on schedule. However, where Anaconda proposes to develop land only, the actual construction of the units being left to independent contractors, no additions to the housing supply were assumed. Under these assumptions, Anaconda would provide 126 units in 1980.

The results of this analysis indicate that there would be excess demands for 579 dwelling units in 1980, with an additional shortfall of 174 units, 753 total, by the end of 1981. After 1981, the housing situation would begin to ease. Although this is a worst-case analysis, it is clear that 753 households would not move into the Tonopah area if adequate housing were unavailable.

Should a housing shortage occur, of the magnitude described above, there are several possible effects on the environment. First, all immigrants would live someplace, whether in tents or camper units, doubled up in existing units, or in distant locations, e.g., Austin, Las Vegas, etc. However, satisfaction with such living conditions would be low. This could lead to job dissatisfaction which would lead to higher employment turn-over rates, recruiting difficulties, and possibly to delays in the construction of the proposed project. It would also lead to higher competition for existing dwelling units, driving up rents and housing costs. These effects would affect all residents of the area. However, the impacts would be most significant to the current residents, especially those on fixed incomes.

Several factors could reduce the extent of the housing shortage in the Tonopah and Nye County areas below the worst-case level, for example, an increased use of mobile homes. Since mobile homes are produced outside the local market area and the producers are not competing for a limited supply of labor, the supply of mobile homes could, and probably would, expand quickly given the strong demand and high prices. The local home building industry would also expand under the same market pressures, increasing the production capacity. This expansion is not readily quantifiable, but it would be slowed by the fact that the homebuilding industry would have to compete for local labor, or if it recruited labor from other areas, they too would have to compete of the limited housing.

In summary, the most probable housing impact under a worst-case analysis would be a significant shortage of housing, of no more than 579 dwellings. Depending on the extent of the shortage, there could be undefined spillover impacts into other areas, or the progress of the proposed project could be affected. All expansion of the housing supply is based on the assumption that the wastewater treatment facilties would be expanded as described in Chapter 2.

A potential indirect impact associated with the proposed action, could occur following the construction period if a large number of motel rooms are built to accomodate the construction period housing needs. Following construction, these rooms would be available for other purposes, e.g., tourism and highway traffic. If high occupancy rates are maintained, the expansion of the number of motel rooms and associated services would be beneficial. If, on the other hand, high vacancy rates occur, there would be adverse effects on the business community.

Land Use

The proposed mine/mill operation would occur on privately owned land and patented mining claims. The land has historically been used for livestock grazing. Of the 9,000 acres acquired by Anaconda, 2,940 acres would actively be used for the mine/mill operation. Anaconda intends to make much of the remaining land available for livestock grazing as long as such grazing does not interfere with the operation of the mine/mill.1/

The increase in population associated with the operation of the mine/mill would necessitate additional land development for housing, parks/open space, commercial/industrial, and public uses. The majority of such development would occur in Tonopah, where most of the immigrating population is expected to reside.

Using a standard of 12.67 acres/100 additional people (see Chapter 6); most of which would be used for residential purposes, the proposed action would necessitate the long-term development of approximately 264 acres of land. This is in addition to the 115 acres needed to meet the expected baseline population growth. This is considered to be a significant impact because it would nearly double the developed acreage of Tonopah currently estimated at approximately 300 acres.8/ As described in Chapter 1, Anaconda has acquired approximately 600 acres of land immediately northwest of Tonopah which would be made available for development. This parcel has sufficient capacity to accomodate the need for developable land associated with both the baseline and those asssociated with the proposed action.

The proposed action would not create any impacts on the wilderness values in the study area. Also, given the limited amount of agriculture in Nye County, especially in the affected area, no significant impacts will occur. The only impacts may be limited impacts on grazing (see the Vegetation Report).

Health Services

The proposed mine/mill complex would increase the population of the primary service area of Nye General Hospital by nearly 85 percent, based upon 1979 population figures. Centered in Tonopah, this increase would result in higher average occupancy rates and use of facilities. Based upon current occupancy rates, Nye General has sufficient capacity to

accommodate such increases. As a result of the increased patronage of the hospital, two or three additional nursing staff would be required. The hospital has had difficulties recruiting staff in the past because of low wages and the lack of adequate housing. Should this continue, a shortage of staff would occur, however, this is not considered to be a significant problem. However, it is possible that a number of nurses would be among the immigrating population to fill the additional staffing needs.9/

Increased use of hospital services would also increase its annual revenue base. This would allow it to either reduce the level of financial assistance required from property taxes, or to offer new or expanded services to the population. These benefits could be achieved without significantly increased health care costs, due to increased efficiencies and a lower rate of uncollectibles due to a higher number of people covered by health insurance programs. These impacts would be beneficial to the community.9/

The Central Nevada Rural Health Consortium (CNRHC) would also be significantly impacted by the proposed action. The increased population would translate directly into a need for additional staff, including a doctor, a dentist, and several assistants, virtually doubling the CNRHC's current staff at the Tonopah clinic. Some additional equipment would also be needed, e.g., a dental chair and equipment. Up until now, the CNRHC has relied upon the National Health Service Corps (Corps) to provide its doctors and dentists. However, the Corps itself has fewer doctors than are requested nationwide, so additional staffing for the CNRHC could become a problem. If unable to contract doctor's services through the Corps, the CNRHC would either have to contract with a doctor through some other means, or hope that a physician could be attracted to establish private practice in Tonopah, otherwise the level of health care could be reduced significantly, due to a staff shortage.11/ Much of the cost of the additional staff, e.g., physicians's salaries and equipment, would be covered completely or in part by the Corps, while the remainder would be provided from the revenues received for services. Therefore, no significant impact would result on costs.

At the same time, the CNRHC would indirectly benefit from the proposed action as the increased population generated additional revenues in the various clinics. These additional revenues would help the CNRHC reach its declared objective of making its clinics financially self-sustaining. The larger population base would also make Tonopah more attractive to physicians seeking to establish private practice. While the likelihood of either of these events occurring is unknown, the occurrence of either would constitute a significant indirect benefit resulting from the proposed action.

The emergency service providers would also notice increased workloads as a result of the mine/mill. The prinicipal agencies to be affected would be the ambulances operated out of Nye General Hospital, and the Tonopah Fire Department. For both, the principal problem would be longer response times to the new residential areas. Both agencies indicated that their current facilities and equipment were adequate for populations significantly higher than the current 2,100 population in Tonopah; however, additional volunteer staff, e.g., drivers and EMTs, may be needed if

the number of responses increases too much. In the case of the fire department, some emergency service needs could also be met by increasing the number of paid professional firefighters. It was also indicated that additional emergency needs may have a secondary benefit of increasing the proficiency of staff in handling such emergencies. In the long run, it may be beneficial to build an unmanned station housing a fire truck and ambulance in the residential development, to be manned by residents there to maintain low response times.9/10/

Other emergency response groups may also notice increased calls for services; however, these would be more indirect. For instance, there could be more lost hunters in the area which would involve the Nye County Search and Rescue; or the increased traffic could lead to more accidents where the ambulance response would be from outside Tonopah. From all available data, it appears that these groups would be able to respond to increased demands on their services.

The Anaconda Company plans calls for an ambulance to be located at the mine/mill complex. This unit would be staffed by members of the workforce to provide emergency aid and transportation services to any workers injured at the operation.1/

The population downturn following the end of the project would result in another series of impacts on the provision of health care in the study area. These impacts would include reductions in staff and possibly in services and an increase in the amount of excess capacity at Nye General Hospital. Health care services would not necessarily return to their current status, as the baseline population of Tonopah in 2001 would be 45 greater than its current level. However, for the baseline population, these impacts would be perceived as significant if the changes resulted in a reduction in health care relative to what they were used to receiving immediately prior to the reduction.

Law Enforcement

The three principal law enforcement agencies in Nye County would be affected by project-related population growth, especially in the Tonopah area. Several additional officers and another patrol car would be required in Tonopah to maintain its current level of service for the expanded population. The jail facility would be adequate and the communications system, which is currently being improved, would be able to meet the needs of the sheriff's department.12/

The court systems would also experience increased workloads as a result of project-related population growth, since crime and civil offenses tend to increase with population growth. Both the district and justice of the peace courts would require additional staffing. These needs could be met by changing some part-time staff to full-time, and maybe hiring an additional person. The Justice of the Peace indicated that he felt that the types of crime which would increase would be aggravated assult and alcohol-related offenses. The district judge expected few adverse impacts

and indicated that the courts would be able to meet the additional caseloads. The district attornye's office also expected an increase in workloads related to the above impacts and also the functioning of the local government. The increased workloads would lead to the needs for additional staff, and possibly more office space. However, none of the above impacts were considered significant.13/14/15/

The state highway patrol would not be significantly affected by the construction and operation of the mine/mill.16/ The most significant increases in traffic would be on state and county roads in the vicinity of Tonopah. It is expected that the sheriff would provide a substantial portion of the coverage. The Esmerelda County sheriff's deputy, stationed near the county line between Esmerelda and Nye counties would also be affected, though not significantly, since the access roads to the mine/mill site and the residential development area lie approximately five miles and three-fourths of a mile inside Esmerelda Colunty, respectively.

Fire Protection

As described in Chapter 2, fire protection in Nye County is provided primarily of Federal agencies and volunteer rural organizations. Serious fires in the area may be fought through the cooperative efforts of several local departments. The proposed mine/mill complex would have firefighting capacity available at the plant to provide fire protection, including a fire truck at the mill with plant employees manning the truck in the event of a fire.1/

The fire protection and rescue services provided by the Tonopah Fire Department are more than adequate for existing and future needs without the proposed action. The project-induced population would eliminate the remaining excess capacity, but would not create serious fire protection problems. Also, the increased population would supplement the staffing levels of the volunteer programs. As the population increased, further assessments may show a need for additional professional firefighters for the fire department to maintain its high level of service. An unmanned station to house a fire truck and ambulance may also be needed at a later time (in the area being considered for residential development) to maintain the current level of service.11/ The water supply for fire protection purposes to that area would be from a one-million-gallon storage tank southeast of the property. Because of its capacity and because it is at a higher elevation than the residential development site, it would supply adequate water at an adequate pressure to meet fire protection needs.7/

Public Utilities and Communications

Companies responsible for providing electrical, telephone, and propane gas services in the Tonopah area indicate that their systems have sufficient capacity to accommodate the baseline growth. One of the gas suppliers also indicated that their company had sufficient capacity to accommodate any growth associated with the proposed action, based on a

history of no supply or delivery problems.17/ Both the electrical and telephone service managers indicated that their systems did not currently have adequate capacity to meet the incresed demands associated with a larger population. However, both firms are pursuing programs which would provide adequate capacity in the near future. These plans include the installation of 400 more telephone lines by the Nevada Telephone-Telegraph Company, bringing the total to 1,400. This is expected to meet telephone needs through March 1980, at which time up to an additional 600 lines can be installed. The current system has a maximum capacity of 2,000 lines which would be reached in 1980. If all of these lines go into use, the company would consider installing a new system with a gretaer capacity; otherwise some people would have to go without service.18/

The Sierra Pacific Power Company is pursuing plans to build a new substation new Tonopah. The resulting increased capacity would allow the system to meet any reasonable demands for residential and commercial power service, including those of the baseline and proposed action. The expansion program is expected to be completed by late 1981. In the interim period, facilities at the current substantion could be expanded sufficiently to meet any anticipated residential and commercial needs.19/

The direct impact to these programs would be the costs of providing service capacity to the additional consumers. The amount of these costs is not known; however, they would in general be borne by the consumer, e.g., new consumers would have to pay for propane tanks or phone installation charges, and would not be significant. If, however, the expansion programs alter the rate structure for service in these companies, i.e., abnormally raising costs, this would affect all consumers. In general, the significance of such a change cannot be assessed. However, for certain groups, e.g., those on fixed incomes, any change in the cost of living can be considered significant.

Water

The proposed action would not result in significant impacts on Tonopah's water supply, distribution system, or storage facilities. This conclusion is supported by a recent study which indicates that Tonopah's water system has sufficient capacity to supply a population of 5,000 people with excess capacity remaining. The maximum estimated population, including that associated with the proposed action, would be approximately 5,000 in 2001, just prior to the end of production. Even allowing for an additional factor of 10 percent (to allow for tourists, etc.), total water demand would only be about 58 percent of the 670 gallons per minute capacity of the water supply wells.20/

There would, however, be a significant impact on the distribution system in that it would be necessary to expand it considerably to accommodate the project-related growth. The location of such expansion would be dictated by the growth patterns of the town. Anaconda has already acquired the necessary easements to allow construction of a water supply main from its proposed residential development area to the existing storage facilities. The costs of extending the water distribution system to the residential site

would initially be borne by Anaconda and passed on to the new consumers. Thus, the costs would ultimately be borne by those who benefit from the improvements, while not impacting current customers.1/

Wastewater

The wastewater treatment system is at capacity and is in violation of state environmental quality standards; therefore, only limited new hookups are being allowed. As discussed in Chapter 2, the county is currently considering two plans to expand the capacity of the wastewater treatment facility. One is a short-term measure which would include the installation of aerators into the existing pond system. This plan has been approved for implementation by the Nevada Division of Environmental Protection (DEP) and would allow for 500 additional hookups. While no decision has been made by the county to proceed with this plan, it can be implemented and operational within two weeks of the county commissioners' approval.

The second plan includes the construction of a new treatment facility and pond system designed to accommodate a population of 5,000 people. It would also be readily expandable to provide treatment capacity for 10,000 people. At the present time, the design and grant application have been submitted to and approved by the DEP and have been forwarded to the U.S. Environmental Protection Agency (EPA). It is expected that the EPA will approve the design and grant.21/ For the purposes of this analysis, it was assumed that both programs would be implemented by the county with the aerators becoming operational in March, 1980.

Using these assumptions and a worst-case assumption of the demands for wastewater services, i.e., that the work force would increase as planned with adequate housing being available, the aerator system would allow growth through approximately June, 1980. Between that time and the point in time when the permanent facility is operational in December 1980, the demand for wastewater services, using the number of hookups as an indicator, would exceed available capacity by about 300 hookups. This situation would create a significant, direct, temporary adverse impact, in that the excess demand is the approximate equivalent of 25 percent of the system's capacity. The indirect effects which could result from this could also be significant. These could include a moratorium on new hookups, which would constrain the housing supply and technically would delay the construction schedule; or the construction schedule for the permanent plant could be expedited; or if all other means fail, Anaconda has indicated that it would intervene to insure that adequate capacity is provided, possibly by using a package treatment plant for the wastewater treatment demands associated with the residential development.1/

As with the water distribution system, the wastewater collection system would need to be expanded to accommodate the project-related growth. The additional capacity would need to be provided at the proposed residential development area. Ananconda has acquired the necessary right-of-way easements and would initially pay for the expansion of the system. These costs would then be passed on to the homebuyers in the area. Thus, the direct impacts would be borne by those who would benefit from the improvements.

There is, however, the possibilty that the expansion program could increase the rates for all users. As discussed in previous sections, the significance of such changes would vary depending upon the individual's perspective.

Following the end of production at the mine/mill and the resulting decline in population to the baseline levels, the wastewater treatment facility would have significant excess capacity, i.e., it would only be at 60 percent of capacity. There would not, however, be any significant financial impacts as the construction costs would be fully repaid under a twenty year financing program.

Solid Waste

The county landfill near Tonopah is currently at about 20 percent of capacity. Without the project, the landfill would be nearing full capacity in 1990. The additional demands created by the project-induced population would bring the landfill to full capacity by the mid-1980's, requiring additional land. Should the BLM lands adjacent to the landfill site become available, the landfill could be expanded to accommodate the needs of the larger population. If this land is not made available, other land would have to be found to avoid solid waste disposal from becoming a significant problem. However, it is assumed that the BLM would make the land available.7/

Staffing for both the collection and landfill operations could either be increased, or part-time personnel could become employed full-time. Additional equipment may also be needed. The increased amounts of waste would require more frequent compaction and covering to eliminate problems of blowing debris, etc. Any increases in operating and maintenance expenses would be recovered from service charges, thus, the additional costs are not considered to be a significant impact.

Social Services

Among the social service programs, the supplemental assistance programs, e.g., food stamps and unemployment insurance, would experience an increase in demand. This often results when parties come into a rapidly growing community and are unable to find employment, shelter, etc. These impacts would be most severe during the construction period when there would be a transition among workforces, and the greatest frictions among various social groups. Other agencies responsible for counseling and rehibilitation programs could services are often associated with sudden population increases, or as a result of frictions between the new and established population groups, a disruption of existing lifestyles, or simply because there are more people. State agencies responsible for these programs have indicated they can handle the additional caseloads by pooling resources and reassigning employees.22/

The county also is responsible for providing some social services. Currently these programs account for only approximately three percent of the county's budget and could be expanded. However, as pointed out in the discussion of financial resources, the county is constrained by the imposed legal maximum tax rate so that if the needs precede increases in assessed valuation, social service programs could be expanded only at the expense of other programs. In the short-term, the assessed valuation of the county would increase to the point that additional revenues would be available, and adequate services could be provided. Thus, no significant impacts are expected.23/

Community Facilities

Community facilities would be directly affected by an increase in community population. The library, now open for several hours every afternoon would have to remain open longer, perhaps for several full days a week. Additional staffing, either salaried or volunteer, would also be required. Library usage may change with different population groups, and the librarian should monitor the demands for service to determine the specific needs of the expanded population.

The U.S. Post Office would be significantly impacted by the needs of 2,100 additional persons. Both additional staff and post boxes are needed to adequately provide service for the baseline growth, much less than associated with the proposed action. A new substation near the residential development area may also be required, since the existing building would require remodeling and/or expansion and would not be readily available. Finally, the postmaster may decide that in the long-run home delivery would be more appropriate for a population of abot 5,000.24/

The Tonopah Convention Center would also be significantly impacted. These impacts would be primarily beneficial, e.g., increased usage of the facility, which would generate increased use revenues, and increased revenues generated from the local room tax on overnight accommodations. Although unquantifiable, virtually all increases would be significant for the center, which is self-sustaining and had a 1979-80 operating budget for approximately $47,000.

Attitudes and Lifestyles

Rapid growth of the magnitude anticipated to result from the proposed action inevitably brings a change in the traditional values and social structure of the community. The magnitude and direction of these changes are determined by a number of factors, including the social characteristics of the existing community, the size and rapidity of the population influx, the transient versus permanent status of newcomer groups, and the differential between "peak" impacts and short-term changes in the social environment. The financial implications of providing public facilities and services can also influence these impacts. In addition, each individual's view of the changes in his perceived quality of life or lifestyle is a highly subjective perspective which cannot be reduced to an objective quantified assessment for an entire population or group.2/

than encourage their integration into local churches, fraternal organizations, and other social institutions. Correspondingly, the temporary newcomer population tends to be unconcerned about the possible effects of growth on the local community, further polarizing the two groups. In contrast, it is anticipated that the incoming permanent workforce will become integrated into the existing social structure within a reasonably short time.25/26/27/

It is anticipated that the reaction to the changes associated with the proposed action will vary among major social groups in the study area, based on how each group perceives the probable effects on their livelihood and quality of life. The following assumptions can be made based on documented changes which have occurred in attitudes and perceptions among parallel social groups in similar rural western communities impacted by rapid development, and on information relative to attitudes towards development obtained through field interviews with local residents. As noted in Chapter 2, existing attitudes toward growth vary across major social groups, with ranchers generally opposed to development, particularly activities which conflict or interfere with their use of national resource lands, while residents of Tonopah and other communities tend to be mostly pro-developent and oriented towards the outside world.28/ The greatest resistance to change will most probably occur among the long-time rural residents, unless they directly benefit from the project. This group may feel that their isolated rural lifestyle is threatened by the influx of over 2,000 people, bringing with them increased traffic, noise, encroaching on their privacy, and possibly diminishing their sense of place and position in the community. The attitudes of community residents would most likely reflect the degree to which they expect to benefit from the project-related growth. In particular, local merchants and businessmen will most likely welcome growth, at least up to the point where competitors, especially chain stores, are attracted to the area. More recent community residents, including government employees, teachers, and other professional and service workers are also likely to view the projected changes as being primarily positive, in terms of providing stimulus to the local economy, encouraging development of a broader range of commerical facilities and services and promoting a greater diversity of viewpoints and interests within the local social structure. On the other hand, those residents living on fixed incomes, particularly the elderly, would view project-related changes negatively to the extent that the inflated cost of living associated with higher incomes and rapid growth reduces their purchasing power for housing and other goods and services.25/28/29/

In addition to the effects on the individual social groups described above, changes would also occur in the relationship among these groups within the overall social structure. Based on the documentation of similar impact situations, community cohesion would decline temporarily during the construction phase due to a polarization among groups. Cohesiveness will gradually increase, however, as the permanent workforce is assimilated in the local social fabric through their involvement in churches, clubs, and other formal and informal activities.25/27/29/ At the same time it is

In this case, the proposed action would result in a substantial population increase within a short period of time, particularly in Tonopah, which will experience nearly a doubling of its population in a two-year period. This growth will also lead to increases in demands on housing and public services. The effects of this rapid growth would be somewhat offset, however, because the population growth would plateau almost immediately, remaining almost constant through the year 2001. Such a growth pattern is in contrast to the more typical pattern of a sharp peak during construction, followed by a decline to a much lower permanent population level for the life of the project. This plateau effect would reduce the perceived negative impacts asociated with the need to accommodate a temporary major population increase, i.e., infrastructure requirements, because it allows for local planning agencies to plan for a sustained population, rather than a rapidly changing population. Although a decline in population would occur when the mine is closed, the anticipated effects would be minimal compared to those experienced at the beginning of the project; capital improvements having been amortized, the economy may have diversified, etc., so that in all but a worst-case situation, the population decline will not be as significant as the growth at the outset of the project.

Relative to the infrastructure requirements, major factors influencing the perceptions of the existing population toward growth, particularly among the residents of Tonopah, would be: 1) the relative ease or difficulty in meeting the demands of the new population for housing and community services; 2) the extent to which a financial burden or reduced level of service is imposed on existing residents as a result of growth; and 3) any perceived beneficial impacts of the proposed action, e.g., increased economic growth or tax base. In general, local residents would probably react favorably or with ambivalence toward these topics. In addition, the proposed action will generate an annual payroll of $8 million at full production and nearly $2 million annually in property and sales taxes, which will largely offset any financial burdens of providing public services to the expanded population. It is also anticipated that most residents will perceive the indirect effect of the Anaconda housing plan quite favorably since it would provide the additional housing required to accommodate the project-related growth while also offering a greater range of housing alternatives to existing residents.

The other factor which must be considered in assessing the perceived level of social disruption associated with this initial rapid increase is the amount of turnover and change of composition among newcomer groups. In other words, even though a stable population level may be reached fairly quickly, the degree of impact will also be determined by the transient versus permanent status of population groups. Impacts on attitudes and social structure may be expected to be correspondingly greater in cases such as the proposed action in which the construction and permanent workforces are essentially separate groups with the majority of construction workers most likely not becoming permanent residents. In this situation, long-time local residents tend to keep newcomers "at arm's length," rather

anticipated that the ties between the townspeople and their rural neighbors will become more tenuous. According to Ganzel, although "town people" currently tend to side with their rural neighbors in a conflict with outsiders, the nature of rural-town interactions is "minimal." It is anticipated that this relationship will be weakened by the concentration of the incoming population in Tonopah and the formation of new bonds between these newcomers and townspeople who share similar interests and orientations towards the outside world. Ranchers may feel a corresponding reduction in their perceived social and political role as mining increases its dominance in the local economy.

The end of production at the mine/mill would bring about another series of changes for the community, groups, and individuals. These changes would affect all members of the community as residents leave to seek alternative employment, ending or at least altering various interactions and relationships. Residents would also experience a decline in the quality of life as the service sector contracts to a sustainable level. Residents would thus have to travel to other communities to obtain goods and services which they were used to obtaining in Tonopah. Finally, the composition of the population would change as the younger, unemployed persons leave Tonopah seeking employment. Those residents who remain, e.g., those who still have jobs or are retired, would have to adjust to a new community structure.

In summary, the initial direct impacts would include: 1) a doubling of the population within a short period of time, and 2) the temporary presence of a large construction workforce with social and demographic characteristics differing substantially from their own. Indirect impacts resulting from these changes would include social and economic dislocations associated with accommodating a large, rapid population influx. These adverse impacts would be most acute during the transition period when the construction workforce is replaced by the permanent workforce, even though total population levels would not fluctuate as drastically as have typically occurred in other mining-impacted communities. Other direct impacts would include maintenance of substantially higher population levels over the life of the project and sustained higher levels of income and tax revenues, with the probable exception of those on fixed incomes. Indirect effects would include responses to the provision of community infrastructure and diversified commercial facilities and services, which would be viewed as positive by most residents, and the gradual assimilation of permanent employees and associated newcomer groups into the existing social structure. Some realignments among social groups would also inevitably occur.

Transportation

Implementation of the proposed action would significantly increase the amount of vehicular traffic on the highway network, particularly on the combined U.S. 95 route northwest of Tonopah and on State Road 89 to the mine site. The effects of the increased traffic were assessed by estimating the future volume/capacity ratios for each route. Capacity was defined for a "C" level of service, i.e., providing a relative free flow of traffic

Table 21

FUTURE TRAFFIC VOLUMES AND CAPACITY NEAR TONOPAH WITH THE PROPOSED ACTION

	U.S. 95 & 6 Northwest of Tonopah	*U.S. 95 & 6 Center of Tonopah*	*U.S. 95 South of Tonopah*	*U.S. 6 East of Tonopah*	*S.R. 89 North of Tonopah*	*S.R. 376 North of Tonopah*
Peak Hour Traffic						
• 1980	1,347	1,508	461	289	1,000	247
• 1983	1,020	1,817	556	348	301	123
• 2000	1,147	2,138	654	654	302	143
Maximum Hourly Capacity	956	2,000	956	956	752[a/]	624
Volume/ Capacity Ratio						
• 1980	1.41	.75	.48	.30	1.33	.40
• 1983	1.07	.91	.58	.36	.40	.20
• 2001	1.20	1.09	.68	.68	.40	.23

[a/] Assumes S.R. 89 will be paved in 1980.

Source: ERT Socioeconomic Technical Report 1980.

averaging approximately 50 miles per hour with some restriction of maneuverability. Future traffic volumes were estimated by assuming that traffic would increase at the same rate as Tonopah's population (baseline plus the proposed action), then adding an allowance for work trips associated with the construction of the mine/mill complex and transmission line, and the operation of the mine/mill. This is essentially a worst-case scenario, because all work trips were allocated to peak periods and no allowances were made for carpooling or any other trip-reducing factors (see Chapter 6).

The analysis was performed for three points in time: 1980, when direct project employment would be at a peak; 1983, when the permanent population impact would have stabilized; and 2001, the 1st full year of production. The estimated volumes, capacities, and volume/capacity ratios are shown in Table 24. Using a ratio of greater than 1.0 to determine when the level of service is deteriorating, the proposed action would lead to a significant deterioration of service, i.e, congestion, slowing of traffic, etc., on combined U.S. 95-6 in downtown Tonopah before 2001. These impacts would affect all travelers during the peak hour, while travel during the non-peak hours would still be at a "C" level of service.

Other impacts related to the increased traffic would be congestion in downtown Tonopah due to conflicts between local and through traffic; increased competition for limited available parking space; a potential resumption of commuter air service due to the larger population base and the associated increase in travel demand; and, finally, the increased traffic would result in an increased incidence of accidents in the area, thereby adversely affecting the community. These changes would be perceived as significant primarily by the current residents who are used to relatively easy travel around Tonopah and adequate parking.

Recreation

Based on a population increase of over 2,000 people in the Tonopah area by 1982, the implementation of the proposed action would result in a significant increase in demand on local recreational resources. The increased population would add to the number of participants in outdoor recreation, particularly in those activities where participation is not restricted or only requires a license, e.g., backpacking and fishing. These increases would not result in any significant reductions in the recreation experiences of most of the participants since many of the activities are of a dispersed nature, pursued by individuals or small groups of people. There would, however, be a significant adverse impact created due to the increased demand for limited campsites, resulting in overcrowding, etc., and reducing the quality of the recreation experience of parties so affected. An indirect effect of the increased demand and possible congestion would be that some recreationists would driver further to other areas increasing the use of those facilities, e.g., campsites in Lander County. Depending upon current utilization rates at those sites, similar adverse impacts could occur there.30/

In controlled participation activities, e.g., big game licenses issued by lottery, the number of participants would not change, but the participation rate would be reduced because of increased population. While collectively the reduction might seem insignificant, individuals whose participation rate would be reduced would perceive this as a significant adverse impact.

The increased population would require additional measures to manage the available resources; however, specific measures are not known. Other recreational resources, such as the ghost towns identified in the Recreation section in Chapter 2, would also experience an unquantifiable increase in the number of visitors.30/

The town of Tonopah would be more directly affected than Nye County as a whole, as increasing population would create demands for additional community recreational facilities in Tonopah. Public recreational facilities at Servicemen's Memorial Park, such as the outdoor swimming pool, would experience increased usage, and the demands for the limited indoor facilities described in the Recreation section in Chapter 2 would further strain the capacity of those facilities. Current organized recreation programs, e.g., softball leagues, would need to be expanded and additional facilities would be needed, especially playing fields and an indoor gym. Plans currently under consideration to expand the inventory of the town's recreational facilities, e.g., new softball fields on lands acquired from the BLM, taken together with the gymnasium to be included at the new elementary school, and the dedication of public use land in the proposed residential development area would provide adequate open/recreation space in the future.1/7/

Additional recreational opportunities may be forthcoming from the private sector. Currently, Tonopah has no movie theaters, bowling alleys, etc. With a higher population base, such establishments may be attracted to the area as part of the expansion of the economic base, as discussed in the socioeconmics section of this chapter. Based upon conversations with local residents regarding recreation needs, the development of any such facilities would be a significant indirect beneficial impact.

Big Smoky Valley

The Big Smoky Valley would only experience minimal affects due to the construction and operation of the mine/mill complex. The primary access between the two is an unimproved county road which connects the site to State Road 8A. Should this road be unpassable, the alternative route from the site, through Tonopah, to the Big Smoky Valley, is over 60 miles long. Coupled with the minimal services and housing available in the valley, few construction or permanent workers and their families are expected to reside in the valley. What population growth does occur would probably be during the construction period, or from the induced-secondary employment increases. In addition, some current residents of Tonopah may move to the valley to avoid a perceived reduction in their quality of life, brought on by the new doubling of Tonopah's population.

An increase in the number of persons engaged in outdoor recreation activities, as described in the previous section, is the other likely affect of the mine/mill which would be noticed in the Big Smoky Valley. This would be relatively insignificant unless such use create conflicts with other use of the public lands, e.g., livestock grazing. Current land use in the valley would not be significantly affected by the mine/mill complex.

EFFECTS OF THE PROPOSED TRANSMISSION LINE

The construction of the transmission line is expected to require two work crews, each with 40 to 60 workers. One crew will complete the line between Tonopah and the midpoint of the line, while the other completes the line between the midpoint and the northern interie. Each work crew will be divided into eight smaller crews, each with a separate function. The construction period would be from five to six months; however, because each small work crew is involved with different aspects of the job, all 120 workers (both crews) would not be working in the same area at any one time (see Chapter 6).

Since the contstruction period would be relatively short and the construction crew temporary, the social and economic impacts of building the proposed transmission line would be for the most part temporary, and generally of minor significance. The primary economic effect would be the brief introduction of the working force into the local economic profile, leading to an increase in the purchase of local goods and services. The bulk of the salary income would probably not remain in the area because most of the labor force would be transient. In such situations, workers usually stay in hotels, motels, or mobile travel trailers; thus, many may return to their normal place of residence for weekends, further limiting local spending. Again, because of the highly mobile nature of transmission construction activities and the low labor requirements, the impact on local housing would be negligible. Also, because of the mobile nature of the construction workforce, the demands on basic services, e.g., police, will be minimal and the current services are adequate to accommodate the impacts created by the construction activities. Therefore, it was assumed that neither short-term population nor induced employment impacts would occur.

The transmission system would add tax revenues to the two counties through which the proposed transmission corridor would pass. The tax revenue is dependent on line miles within the county and on the ad valorem rate each county uses. The revenues expected for Nye County from the proposed transmission line construction are show below:

County	Line Miles	Estimated Assessment	Estimated Tax Revenues
Nye County	56	$1,400,000	$32,060

Assuming a minimum tax rate of $2.29/$100 of assessed valuation (the $1.63 county rate and the $.66 school rate), an assessed value of $25,000 per line mile, the estimated annual tax revenues from the proposed action would be $32,060.2/31/. These revenues reflect minimum tax revenues, and do not include additional rates assessed by other taxing districts the power line may cross. The transmission line would pass through 30 miles of Lander County, and similar revenues would accrue to that county according to its taxing structure.

Construction of the power line would have a minimal effect on the current land use in the valley. Implementation of the proposed action would result in the use of approximately three acres of land for a switching station and additional acreage for access roads and transmission line structures. The acreage is substantially less than the total 1,189 acres in the corridor. The alignment of this corridor would be along the length of the Big Smoky Valley, on the eastern side. Current land use for this alignment is primarily open range for grazing with some mining activity near Round Mountain and Manhattan. Construction of the transmission line would have no impact on either wilderness or agriculture, and only minimal impact on recreation, e.g., if it interfaced with hunting or other outdoor recreation. During the construction period, a few mobile homes may be located in the valley, but this would only be temporary. Long-term land use in the valley would not be significantly affected by the proposed action. As stated earlier, the primary impacts of a proposed action on a socioeconomic environment are the changes in population and employment. These impacts cause other, indirect impacts. Since the construction of the transmission line would not create any significant impacts in population or employment, there would be no other significant impacts created.

EFFECTS OF THE ALTERNATIVES

Alternative #1: West Smoky Valley Transmission Corridor

Alternative #1 differs from the proposed action only in that the transmission line would be located on the west side of the Big Smoky Valley, rather than east. The length of the corridor would be increased to 91 miles. All aspects of the mine/mill complex would remain unchanged, and so therefore would the impacts associated with that element of the proposed action. Also, most of the impacts associated with the proposed transmission line would remain unchanged.

The following changes in impacts would, however, occur:

- o The estimated tax revenues would increase proportionately to the increase in mileage, i.e., approximately 9 percent. The increase would be divided among Nye and Lander Counties on the basis of the length of the line in the respective county.

- o The construction period could be marginally longer, however, this would be imperceptable.

- o Since there is some pasture and crop land in the general vicinity of the proposed alternative corridor, there is a possibilty that there could be some conflict with the existing use. However, given the limited amount of cropland in the area, the impact would not be significant.

- o There could also be cases where the transmission line would have to be rerouted slightly, but still within the study corridor, to avoid having buildings in the right-of-way.

- o Rural residents may also perceive a reduction in the quality of life if they perceive the transmission line as an intrusion of the rural environment.

Alternative #2: Alternate Tower Structures

Alternative #2 involves the use of different designs and materials for the transmission line towers, should this become necessary due to the unavailability of materials required for the proposed alternative. Since this alternative does not alter either the construction period, the estimated size of the workforce, or any other element involving the socio-economic analysis, no changes in impacts would occur.

Alternative #3: Alternative Crushing/Grinding Circuit for the Mine/Mill

This alternative involves a different processing circuit for the mine/mill complex. Because of these design changes, the size of the permanent workforce for the mine/mill would increase by 18 employees. This would in turn lead to the following changes by 18 employees. This would in turn lead to the following changes in the socioeconomic impacts:

- o Induced employment increases of 27 persons.

- o Short-term population increases of 101 people, a 5 percent increase over the proposed action.

- o An increase in the demand for housing of 33 dwelling units. This would increase the potential housing shortage to a maximum of 786 units.

- o Other indirect impacts would increase accordingly, for example, the increase in student enrollments, the number of wastewater hookups needed, etc.

Since the proposed action would create significant impacts in certain areas, all additional impacts in those areas would also be considered significant. Therefore, the above impacts, although they are only about 5 percent higher than the proposed action, are also significant. Similarly, changes in the level of impacts created by Alternative #3 would not alter findings of no significant impact associated with the proposed action to significant impacts.

Alternative #4: No Action Alternative

Under the no action alternative, the Bureau of Land Management would deny the application requesting the occupancy and use of public lands utilizing either of the corridors discussed above. In the event that the application is denied, the Anaconda Copper Company would develop on-site generation facilities at the mine/mill. If self-generation is used, all impacts associated with the transmission line would be avoided, while those related to the mine/mill would occur anyway. In addition, there would be some minimum incremental impacts associated with the construction and operation of the generating plant.

The construction related impacts would tend to be minimal. The construction of a generating plant would most likely result in a higher average level of construction employment, but would not significantly alter the duration of the construction period, or the peak level of construction employment.

The permanent workforce at the mine/mill would increase by 15 persons if self-generation is used. Using the same assumptions as were used for the proposed action, the following effects would be created, in addition to those of the mine/mill.

- o Total employment would increase by 38 persons.
- o Thirty-four of the above will be immigrants to Nye County.
- o This will result in 28 new households being associated with the proposed action, 27 of which would locate in Nye County, and 25 of which would locate in Tonopah.
- o The total incremental population increase would be 85 people, 77 of whom would live in Tonopah. This total is 3.9 percent of the total population impact associated with the mine/mill.
- o Other impacts would be created in approximately the same relationship as that described for population above.

Again, for those areas found to be significantly impacted by the proposed action, the impacts of the proposed action would also be significant. Other impacts, both direct and indirect, would not be significantly altered.

UNAVOIDABLE ADVERSE IMPACTS

The following is a summary of the unavoidable adverse impacts associated with the proposed action an d each of the alternatives. Because the impacts themselves are discussed elsewhere, only a brief statement of each is provided here.

The Proposed Action:

Population: Population would increase significantly in Nye County and Tonopah. The short-term increases would be 2,195 and 2,080, respectively, while the peak increase, in 1981, would be 2,460 and 2,330 for Nye County and Tonopah. A significant decline in population would occur following project abandonment.

Employment and Income: Up to 1,000 jobs could be eliminated at project abandonment. The rapid growth would lead to increases in the cost of living, adversely affecting those persons whose income did not increase proportionately, particularly those on fixed incomes.

Public Financial Resources: There would be an adverse impact on financial resources during the first several years of the project as the budgets of local governments had to increase to accommodate the growth. A second adverse impact would occur at project abandonment when the tax base declines.

Attitudes and Lifestyles: Some residents would experience adverse impacts due to disruptions of lifestyles, a diminished sense of place in the community, and frictions among existing and new social groups.

Housing: There is an anticipated shortage of housing which would lead to higher costs of housing, job and community dissatisfaction, a diminished perceived quality of life for those in inadequate housing, and possibly a delay in the construction of the project.

Community Facilities and Services: Schools would be unavoidably impacted by the increase in enrollments, temporary overcrowding, and the need for increased staff and additional facilities. Local health care providers would need additional staff. All of the above have been experiencing problems recruiting staff. If such problems continue, they would lead to an unavoidable reduction in

the quality of education or health care. The project-related growth would cause unavoidable adverse impacts to Tonopah's water supply, wastewater, and solid waste disposal operations, as each would require some expansion during the life of the project. The U.S. Post Office requires additional staff and facilities just to meet the baseline demands. Therefore, by definition, the project-related growth would result in unavoidable adverse impacts.

Transportation: There would be a significant increase in traffic on local highways, with a significant deterioration of service on the access route to the mine/mill. Adverse impacts would include congestion, increased maintenance costs, and increased incidence of accidents.

Land Use: The conversion of 3,204 acres of open space and grazing lands to industrial, residential, and commercial use would be perceived by some persons to be unavoidable adverse impact.

Recreation: Demand for the limited indoor facilities, improved recreation sites, and other recreation resources would be an unavoidable adverse impact.

Alternative #1: West Smoky Valley Transmission Corridor

There would be no changes in unavoidable adverse impacts from the proposed action for this alternative.

Alternative #2: Alternative Tower Structures

There would be no changes in unavoidable adverse impacts from the propposed action for this alternative.

Alternative #3: Alternative Grinding/Crushing Circuit for the Mine/Mill

This alternative would increase the population and employment impacts by approximately five percent. Those unavoidable adverse impacts associated with the proposed action would reflect changes comparable to the increases in the population and employment impacts.

Alternative #4: No Action Alternative

This alternative would increase the population and employment impacts by approximately four percent. Those unavoidable adverse impacts associated with the proposed action would reflect changes comparable to the increases in the population and employment impacts.

RELATIONSHIPS BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Over the 20-year life of the mine/mill complex, Nye County's population is expected to increase from 7,995 people in 1979 to 13,775 in 2001. Of this increase of 5,780 persons, 2,200 would be related to the proposed action and the mine/mill. This project would also create 1000 new jobs. These increases would be virtually constant over the life of the project. The additional jobs and people would generate increased incomes and demands for goods and services. During the first 2-3 years of the project schedule, there would be some temporary adverse impacts because of the local economy's inability to respond fully to these pressures, especially for housing and public services. However, following a period of adjustment, the required number and variety of establishments and services would become available. Once the expanded economic base developed, it wouuld be able to serve as a foundation for further economic growth, e.g., additional mining or military activities.

During rapid growth situations, increased demands for public services create short-term fiscal impacts, since the generation of additional revenues lags behind the increased need for public expenditures. The result would be a temporary reduction in the level of service provided. Over the short-term; however, the increased revenues, especially from property taxes, not only offset the additional expenditures burden created by the motivating force behind the rapid growth, but will often generate sufficient revenues to either support other programs or reduce the tax burden in other entities.

The use of approximately 3,450 acres of privately owned land would be changed from its current use--open space grazing--to residential and industrial land. Most of this land would remain unreclaimed. A small amount of acreage would also be needed in the future to provide additional capacity for public use, primarily for solid waste disposal.

The increased population and employment levels associated with the mine/mill complex would also result in an increase of highway traffic on the highway system around Tonopah. Although there is adequate capacity to accommodate the expected traffic levels, highway maintenance costs would be higher, and increased traffic would result in more accidents.

Following the end of production, there would be significant declines in employment and population, These declines would create other indirect impacts, which generally would be the reverse of those anticipated during the project start-up. Some of these impacts would extend beyond the short-term and into the long-term. With the exception of the land use impacts, it is expected that these impacts would dissipate over the long-term.

Of the four alternatives to the proposed action, only alternatives 3 and 4 would lead to changes in the short-term/long-term relationships, as these are the only two which significantly change the socioeconomic impacts associated with the projects. These changes would be primarily in the short-term and would be increases in population, employment, and the secondary indirect demands resulting from these direct impacts, e.g., an increase in the demand for housing.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

When a resource commitment is irreversible and irretrievable, the commitment cannot be reversed, and once used, the resource is not readily replaceable. Implementation of the proposed action and construction and operation of the mine/mill complex would mean such a commitment for several resources.

Approximately 2,785 acres of land would be committed to the mine/mill complex and for the housing and other demands requiring land development. Another 1,189 acres of land would be involved in the transmission line corridor; however, the actual commitment of resources, e.g., for access roads, would be considerably less.

The population growth and the accompanying changes in social, economic, and lifestyle values would also constitute an irreversible and irretrievable commitment of resources. The amount of human effort directly and indirectly associated with the project, loss of life, and injuries are further commitments of resources which would be made. Alternatives 3 and 4 would increase the commitment of human resources. Otherwise, all of the alternatives involve approximately the same commitment of resources.

Summary

The proposed project would increase the population of Nye County by nearly 2,200 persons over the period 1980-2001. A majority of this growth will occur in Tonopah. Construction of the mine/mill complex would span a two-year period from late 1979 to late 1981. During that time, the estimated size of the construction workforce would grow from 43 in 1979 to a peak of 655 in the third quarter of 1980. The permanent workforce would increase steadily during the same time period until reaching 400 in 1981, and would remain at the level for the estimated 2-year productive life of the project. A peak of 929 total construction and permanent employees would occur during the last quarter of 1980. The permanent employment at the complex is expected to generate an additional 600 positions in the nonbasic service sectors. The primary service sectors which would be affected are: wholesale and retail trade, e.g., grocery stores, clothing store, etc., and the finance, incurance, and real estate sectors. The economy would be expected to expand in all sectors due to the increased population, more specifically due to the increased incomes from both the mine/mill complex and the service sector expansion. The economic impacts would occur almost immediately, though construction impacts would be less than those caused by the permanent workforce and the expanded service workforce. For the most part, the economic effects of the proposed project would be positive in that the local economy would be expansive; however, adjustment to the new population and income may lag behind demand for goods and services creating a temporary problem. In the short-term, the project would cause: (1) an increase of current services, (2) new services, and (3) an increase in local purchasing brought about by 1 and 2 above.

The proposed action could have an overall positive influence on local financial resources. A minimum of $1.7 million of additional tax revenues would be generated annually by the proposed action, once construction of the mine/mill and the new housing is completed. Increased assessed valuation associated with the above construction would also increase the bonding capacity on the local taxing jurisdictions. In Tonopah, the significant growth in population would affect all aspects of the town's financial resources. Revenues from property taxes are expected to increase substantially when the housing stock is constructed and additional property is placed on the tax rolls. On the other hand, the residential development will generate demands on town services and facilities.

The proposed action would create a need for 741 additional dwelling units in 1980. Of these, a majority would be either mobile homes or temporary quarters, e.g., motel rooms or travel trailers, to serve the housing needs of the construction workforce. As the mine/mill becomes operational, the total number of additional dwelling units needed would be reduced to 750, of which 35 percent would be single family homes, 15 percent would be multi-family dwellings, and 50 percent would be mobile homes. Anaconda has acquired land northeast to Tonopah which is suitable for residential development. It will be made available to qualified contractors in an effort to meet the projected housing demands.

The school district would experience the impact of 658 additional students on its facilities, financial resources, and staffing. Enrollment projections show that school enrollment would reach 1,164 by 1984-85. The existing school facilities have a capacity of 630 students. The proposed action will thus create a need for additional capacity for 250 students by 1980-81 and 534 students by 1984-85. The proposed action includes the acquisition of land and the dedication of a portion for public purposes such as public educational facilities. An additional 22 teachers would be required. Other staffing increases would be needed, including administration personnel, teaching, assistants, specialists and, and maintenance staff.

The efforts of the mine/mill complex and the proposed transmission line are summarized in Tables 22 and 23.

Table 22

IMPACT SUMMARY TABLE FOR THE MINE/MILL COMPLEX
SOCIOECONOMIC DISCIPLINE

Affected Element	Impacts
Population	The proposed action would result in significant temporary and short-term population impacts. The short-term impact would increase the population of Nye County nearly 2,200 people and Tonopah's population by about 2,100, over the period 1980-2001. There would also be a significant decline in population at the abandonment of the project.
Employment	The construction employment would peak at 660 employees in the last quarter of 1980. Permanent employment would stabilize at 400 in 1981, while the direct impact would also generate and additional 600 service sector employees. There would be a significant decline in local employment at the abandonment of the project, potentially affecting 1,000 jobs.
Economic Base	There would be temporary impacts in the form of excess demands for goods and services due to the inability of the service sector to expand rapidly. In the short-term, the proposed action would induce an expansion and diversification of the service sector.
Financial Resources	Property tax proceeds would average $1.7 million annually. Other revenues would also be generated. Public expenditures would increase by approximately $1.5 million. Both impacts are significant.
Housing	951 additional dwelling units would be needed to accommodate the peak impact. The short-term impact would be an average of 750 dwelling units. Most of the dwelling units will be mobile homes. Based on worst-cases assumptions there could be a significant shortage of housing (579 units) in 1980-81.
Schools	Enrollment in Tonopah schools would increase by over 650 students by 1981-82. This level of enrollment will exceed current capacity by 500 students. 22 additional teachers would be required. Double sessions and modular classrooms would be used to accommodate the growth until permanent facilities are built. Operating costs would increase by $1.5 million, revenues by $1.3 million.

Table 22 (cont.)

Affected Element	Impacts
Land Use	The population growth would necessitate the development of approximately 264 acres of land for housing, commercial development, etc. Also, nearly 2,600 acres of land at the mine/mill site would be irretrievably commited.
Health Services	Nye General Hospital has adequate facility capacity to accommodate the growth. Both the hospital and the Central Nevada Rural Health Consortium would need additional staff. These impacts would not be significant unless recruiting problems were experienced.
Law Enforcement	The Nye County Sheriff's Department, the District Court, the Justice Court, and the District Attorney's Office would all need additional staff. These Impacts are not considered to be significant.
Fire Protection	The Tonopah Fire Department has adequate capacity to maintain its high level of service to the community.
Water	Both the town's water supply and storage facilities are adequate to accommodate the project-related growth. The distribution system would need to be expanded. For the growth occurring in Anaconda's residential area, the expansion costs would be borne by the new users.
Wastewater	A new treatment plant will be completed in 1980 which will accommodate the expected growth in Tonopah through the mid-1990's, at which time it can be expanded further. An interim plan includes the installation of aerators into the existing lagoons, allowing 500 additional hook-ups.
Solid Waste	The landfill would reach capacity in the mid-1980's. BlM land adjacent to to the site is well-suited for expansion of the current site. It is assumed that the BLM land will be made available when needed. Both the collection and disposal operations would require increased staff.
Social Services	These programs would experience increased workloads. However, officials of each indicated that the impacts would not be significant.

Table 22 (cont.)

Affected Element	Impacts
Community Facilities	The only significant impacts on community facilities would be increased use of the convention center and increased revenues for the room tax collections for that center and a critical need for staff and post boxes at the post office.
Attitudes and Lifestyle	Some local residents would experience significant impacts due to the proposed action. These impacts would be a reduction in their perceived quality of life, a loss of place in the community, and frictions between social groups. At the same time, other residents would perceive social benefits occurring due to new viewpoints and social groups coming into the community.
Tranportation	There would be a significant deteriortation in the quality of service being satisfied on the local highway system due to the growth in population. The impacts would be increased traffic, congestion, and an increased incidence of accidents. The increased population could lead to improved public service.
Recreation	Public facilities and recreation resources would experience increases in demands. Local recreation resources in Tonopah, which are already strained by the demands, would not satisfy the additional demands. There are some current programs underway which will increase the amount of facilities available. Also, the expansion of the service sector, coupled with the increased population, could attract additional entertainment and recreation establishments to the area, e.g., a bowling alley.

Table 23

IMPACT SUMMARY TABLE FOR THE TRANSMISSION LINE AND THE ALTERNATIVES
SOCIOECONOMIC DISCIPLINE

Affected Element	East Big Smoky Valley (Proposed Action)	Alternative #1 West Big Smoky Valley	Alternative #2 Tower Structures	Alternative #3 Grinding/Crushing	Alternative #4 No Action
Social	Minimal-Temporary	Same as the Proposed Action	Same as the Proposed Action	The mine/mill impacts will increase slightly due to a 5% increase in population. Short-term.	The mine/mill impacts will increase slightly due to a 4% increase in population. Short-term.
Economic	Insignificant impacts in the communities along the corridor and Tonopah. Temporary	Same as the Proposed Action	Same as the Proposed Action	Same as above	Same as above
Financial Resources	Small increases in property taxes in Nye and Lander Counties. Long-term.	A minimal increase over the proposed action.	Same as the Proposed Action	Same as above	Same as above
Land Use	Approximately 1,189 acres involved in the right-of-way. Very little disturbance.	Same as above	Same as the Proposed Action	Same as above for the land use impacts in town.	Same as above for the land use impacts in town. No land involved in the right-of-way.
Transportation and Recreation	Minimal-Temporary	Same as the Proposed Action	Same as the Proposed Action	Same as above	Slight increase in the mine/mill impacts due to a 4% increase in population.

Chapter 3 References

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CHAPTER 4

LIST OF PREPARERS

The following individuals had primary responsibility for preparing the technical report. Their education, project responsibilities, qualifications, and experience are summarized below.

RONALD A. DUTTON, Economist

B.S. and M.S. in Economics, University of Wyoming
Anaconda Project: Design and implementation of socioeconomic study, forecasting methodology, and data collection. Senior author of Socioeconomics Technical Report.
Experience includes direction of and participation in socioeconomic studies for environmental impact assessments; housing needs analyses and economic/employment forecasting.

KATHLEEN BUTLER, Local Government Specialist

B.A. in Political Science, University of Colorado, Boulder; Master of Public Administration, University of Colorado, Denver
Anaconda Project: Participation in data collection, and analysis of socioeconomic environment, particularly the assessment of the financial resources and capacities of public services. Co-author of Socioeconomic Technical Report.
Experience includes participation in socioeconomic studies to determine the capacity and needs for basic municipal, county, and school district services; analysis of budgets and management policies; and participation in several mining environmental impact statements.

ELIZABETH HETRICK, Economist

B.A. in Economics, University of Colorado, M.A. in Economics (in progress), University of Denver
Anaconda Project: Participated in data collection, the analysis of the socio-economic environment, and coordination with other parties. Co-author of Socioeconomic Technical Report.
Experience includes economic analyses, data collection, and interviewing for numerous socioeconomic studies for transportation, mining, and energy development projects.

JANET J. SKINNER, Sociologist

B.A. in History, California State University, Fullerton; M.A. in Social Science, California State University, Fullerton
Anaconda Project: Assessment of possible life-style impacts related to the proposed action; consultation with other preparers; technical reviewer. Contributing author of Socioeconomic Technical Report.
Experience includes planning and implementation of numerous socioeconomic studies related to mining and energy development projects.

CHAPTER 5

CONSULTATION WITH OTHERS

Many Federal, state, and local government agencies, and various private interests were contacted and have contributed to the preparation of this Environmental Impact Statement. The agencies and other interests contacted include:

Federal Government

- U.S. Postal Service
- U.S. Department of Agriculture
  - Toyiabe National Forest
- U.S. Department of Commerce
  - Bureau of the Census
- U.S. Department of the Interior
  - Bureau of Land Management
- U.S. Department of Energy
- U.S. Department of Defense
  - U.S. Air Force

State of Nevada

- Department of Taxation
- Department of Conservation and Natural Resources
  - Division of Water Resources
  - Division of Environmental Protection
- Department of Highways
- State Planning Coordinator's Office
- Employment Security Department
- State Highway Patrol
- Department of Human Resources
  - Emergency Medical Services
- University of Nevada, Reno
  - College of Agriculture, Cooperative Extension Service
  - College of Business Administration, Bureau of Business and Economic Research
- Department of Vital Statistics
- Bureau of Mines

Local Government

- Nye County
  - Juvenile Probation Department
  - County Administrator's Office
  - County Assessor's Office
  - Justice of the Peace
  - Road and Bridge Department
  - Department of Planning, County Planner
  - Nye County School District
  - Nye County General Hospital
  - Nye County Seniors' Administration
  - Central Nevada Rural Health Consortium
  - Nye County Search and Rescue
  - Sheriff's Department
  - Fifth Judicial District
  - Public Health Nurse

Town of Tonopah

- Town Advisory Board
- Fire Department
- Tonopah Public Library
- Tonopah Public Utilities

Other Contacts

- William F. Pillsbury, Inc.
- Reynolds Electrical and Engineering Corp.
- Nevada Mining Association
- Cal/Gas, Tonopah
- Sierra Pacific Power Co., Tonopah
- Nevada Telephone and Telegraph Co.
- Houston Oil and Mineral Company
- Round Mountain Mining Company
- Shoshone Water Company
- Tonopah TV, Inc.
- Tonopah Chamber of Commerce
- Mustang Air, Tonopah Fixed Base Operator
- Belvada Apartments

CHAPTER 6

METHODLOGY AND ASSUMPTIONS

One objective of an impact assessment is to provide reasonable estimates of the consequences of a proposed action on a given socioeconomic environment. The determination of the impacts is based upon a comparison of the existing environment, the probable future environment in the absence of the proposed action, and the expected environment assuming the implementation of the proposed action. Such an analysis, by definition, requires that various relationships be defined and assumptions regarding the future to be made. The following material summarizes the major elements of the socioeconomic impact assessment.

As in any analytical procedure, the availability and accuracy of the data are primary determinants of the level of analysis which can be performed. In the case of the current study, data availability was extremely limited, with major data gaps as well as frequent discrepancies and inconsistencies. These problems necessitated that a relatively simple analysis be formulated, often using generalized assumptions. The large geographic area of Nye County also required many generalizations to be made.

Two primary elements of socioeconomic impact assessments are the employment levels and population of the study area; employment opportunities providing the means to support the local population. Also, changes in employment frequently lead to similar changes in population. Furthermore, the estimated changes in employment and population are also the basis for determining virtually all other socioeconomic impacts, either directly or indirectly. Thus, many impact analyses often begin by estimating baseline changes in local employment (without the proposed action). In this study, insufficient data were available to allow such an approach to be used. However, since the total change in employment resulting from the proposed action will be based upon existing relationships in local employment, the discussions of methodologies and assumptions begins with a review of the current employment and the economic base of Nye County.

Economic Base/Employment

A central issue in determining the anticipated impact of the proposed action is to estimate the total employment that would result from the proposed action. Of the alternative approaches available, this study uses an analysis of the economic base to estimate the total changes in employment. A fundamental tenet of the analysis is that both the current and the future welfare of a community or region depends upon its basic economic activity. The local work force, industry, and support services are in turn dependent upon the basic activities. Thus, for economic growth to occur, the economic base must first grow.1/

The foundation of economic base analysis is the proposition that the rate and direction of growth of an area is determined by its function as an exporter of goods and services to the rest of the world. Activities which are export oriented are referred to as basic sectors. In addition to the basic activities, there are numerous supporting activities that provide goods and services to the local population. These are the non-basic or service sectors. By identifying and evaluating the relationship between the basic and non-basic sectors of an economy, it is possible to determine the dependency between them. The dependency relationship describes the employment impact potential that may result from a change in the level of employment in a basic industry, such as mining. This relationship is frequently expressed as a "multiplier" relating basic employment to either non-basic employment or to total employment.1/

The method chosen to identify the basic sectors of the Nye County economy is the location quotient technique. It is a means of determining the basic/non-basic nature of economic activities by comparing the proportion of the region's employment in an industry to the proportion of the national employment in the same industry. The result of this determination shows that the region has either the same, less than, or more employment proportionately in a particular industry than national employment in that same industry, i.e., a ratio of 1.0, less than 1.0, or greater than 1.0. If the employment proportions are the same, then the regional industry is considered to be self-sufficient and is neither basic nor non-basic. If the regional proportion is less than the national, then the industry is classified as non-basic. If the regional employment proportion is larger than the nation's, the industry is classified as a basic sector. Again, the purpose of performing this type of evaluation is to estimate a multiplier which expresses the relationship between the basic and non-basic sectors of the Nye County economy.1/

The results of this analysis for the Nye County economy based on 1976 data are presented in Table 24. It indicates that the basic industries include mining, agriculture, Federal government, and those portions of the services and state and local government sectors which exceed local needs, i.e., a location quotient greater than 1.0. The non-basic activities are the construction, manufacturing, trade, finance, insurance, real estate, state and local government, transportation, public utilities, and communications industries. Analyzing the relationship between the basic and non-basic employment levels produced a multiplier of 1.40. However, the proposed action is likely to lead to a diversification of the local service sector. Therefore, the multiplier was increased to 1.5. This multiplier was used to calculate the total employment effect of the proposed action.2/

A similar calculation was done to derive a basic/non-basic income multiplier. The analysis used the basic/non-basic employment allocations derived above, and the 1976 average annual earnings, by sector, shown in Table 25 to estimate total basic and non-basic income. Using these data yielded a basic income multiplier of 1.3.2/

Table 24

LOCATION QUOTIENTS FOR NYE COUNTY AND BASIC/NONBASIC ALLOCATIONS

Sector	1976 Employment	Location Quotient	Allocation of Employment	
			Basic	Nonbasic
Agriculture	175	1.35	175	0
Mining	510	21.45	510	0
Construction	90	.82	0	90
Manufacturing	50	.09	0	50
Trans.,Pub.Util., and Comm.	100	.72	0	100
Trade	310	.57	0	310
Fin.,Ins., and Real Estate	140	1.06	Neither[a]	Neither[a]
Services	777	1.15	102	675
State and Local Government	506	1.35	131	375
Federal Government	225	1.37	225	0
Totals	2,883	N.A.	1,143	1,600

[a]Considered to be self-sufficient

N. A. - Not Applicable

Sources: Abt Associates Inc., 1979.
U.S. Department of Commerce, Bureau of Economic Analysis, 1977.
Nevada Employment Security Department, 1976.

Table 25

1976 AVERAGE ANNUAL EARNINGS BY MAJOR SECTOR
STATE OF NEVADA

Sector	Average Earnings[a]
Mining	$14,440
Consturction	12,890
Manufacturing	10,860
T.P.U.C.[b]	13,370
Trade	6,930
F.I.R.E.[c]	9,640
Services[d]	9,740
State and Local Government[e]	9,520
Federal Government	13,630

[a]Earnings rounded to the nearest 10 dollars.

[b]Transportation, Public Utilities, and Communications.

[c]Finance, Insurance, and Real Estate.

[d]Includes agricultural services and establishments not elsewhere classified.

[e]Nye County only.

Source: Nevada Employment Security Department, Area Labor Review--Balance of State, 1978, 1978.

Baseline Population

As indicated above, one method of projecting baseline (without the proposed action) employment and population levels begins with an estimate of the probable increases in basic employment in the region. These estimates are then taken times the derived basic/non-basic employment multiplier to yield the anticipated change in total employment. These figures are then combined with the various characteristics of the local population to determine the total change in population. Finally, the change in population determines the effect on other socioeconomic variables, most of which are related to population.

For this study, a review of the employment data showed insufficient data were available to allow the baseline population to be derived from changes in baseline employment. Therefore, baseline population was estimated on the assumption that historical growth trends would continue throughout the study period. A linear regression equation was fitted to population data for the years 1920 through 1978.3/4/ After reviewing the resulting equations, the trend line for 1950 through 1979 was used since it best reflected the stabilized, long-term growth trends of Nye County. The trend equation derived from the data is population in year t = 2698 + 163(t), where t is the year, 1950 equal to 1. Since this line does not intersect the 1979 population estimate, the constant was changed so that population = 3104 + 163(t). This results in a parallel shift of the trend in population. This trendline was used to project future baseline population with the results being rounded to the nearest five (see Table 26).2/

Following the estimation of total county population, the total was allocated between the town of Tonopah and the remainder of the county. Historical data show that the town's share of total county population has been decreasing, from approximately 62 percent in 1950 to about 26 percent in 1979.4/ More than anything, this reflects the concentration of recent growth in the Pahrump area. For this analysis, the percentage was assumed to remain constant at 26.3 percent throughout the baseline period.

Given the data problems associated with employment which necessitated the use of trend analysis for projecting baseline population, no estimate of baseline employment was derived. To do so would have required the use of very generalized assumptions relating employment to population which would be difficult to support using available secondary data. Moreover, it is not clear that an estimate of total employment would add to the overall assessment of the baseline environment.

Employment/Population Effects of the Proposed Action

The next step is to determine the effect of the proposed action on employment and population. For this study, an assessment of the proposed action required that four separate employment stimuli be considered: (1) the transmission line construction work force, (2) the mine/mill construction work force, (3) the construction work force associated with the development of additional housing, and (4) the permanent operating work

Table 26

POPULATION BASELINE AND WITH THE PROPOSED ACTION,
NYE COUNTY AND TONOPAH a/

Year	*Nye County*			*Tonopah*		
	Baseline	*Project Related*	*Total*	*Baseline*	*Project Related*	*Total*
1979	7,995	N.A.	7,995	2,100	N.A.	2,100
1980	8,160	1,550	9,710	2,145	1,470	3,615
1981	8,325	2,460	10,785	2,190	2,330	4,520
1982	8,490	2,140	10,630	2,230	2,025	4,260
1983	8,645	2,195	10,850	2,275	2,275	4,355
1988	9,460	2,195	11,655	2,490	2,080	4,570
1993	10,275	2,195	12,470	2,700	2,080	4,780
1998	11,090	2,195	13,285	2,195	2,080	4,990
2001	11,580	2,195	13,775	3,045	2,080	5,125

a/ These estimates assume no permanent population increase associated with the transmission line.

N.A. = Not Applicable.

Source: Abt Associates Inc., 1980.

force for the mine/mill complex. Due to differences in the size and duration of involvement for each of the work forces, several assessment methodologies were developed to analyze the effects of each.

Both the transmission line and housing subdivision construction work forces are expected to be relatively small in size. The construction of the transmission line would require two crews, one beginning in Tonopah and working to the midpoint, while the other begins at the midpoint and works northward completing the line to the intertie. The size of these crews would vary between 40 and 60 persons during the various stages of construction, with a peaking of the labor force in December, 1980. The number of workers associated with the construction of the residential development is unknown. Both of these work forces are expected to be primarily nonlocal, contractor-provided labor who are either migrant or whose permanent residence is elsewhere. Thus, it is expected that many would communite to their permanent place of residence on weekends, that a bulk of their income would not remain in the local economy, and that these workers would not result in a significant increase in service or secondary employment. Finally, since few workers are expected to bring their families with them, few school-age children are expected in the areas. Thus in conclusion, no significant population or employment impacts are expected as a result of these elements of the proposed action.

However, because the peaking of the transmission line construction force would occur simultaneously with the mine/mill employment peak, some brief impacts could be expected. Discussions of the socioeconomic effects of transmission line construction projects can be found in:

> Final Environmental Statement, Pacific Power and Light Company, Proposed 500 KV Powerline, Midpoint, Idaho-Medford, Oregon, 1977; and,
>
> Final Environmental Statement, Sierra Pacific Power Company, Proposed 500 MW Coal Fired Generating Station, North Valmy, Nevada, 1975.5/6/

For the remaining two groups, the mine/mill construction and operating work forces, the anticipated effect is such that a more detailed methodology is required. The same methodology is used for estimating the effects of both groups, but different numerical relationships were used to estimate the differential responses to the temporary and permanent (i.e., construction and operating, respectively) changes in employment. Briefly, the analysis begins with the average annual number of project-related employment for each year. These values are then multiplied times the respective total employment multiplier to derive the increase in total employment. This product is then divided by the average number of workers per household to determine the total increase in the number of households. Typical household characteristics, e.g., the percentages of single and married workers, are then used, along with the total number of households to determine the estimated total population increase, the number of single workers, etc. Some of this information will be used later to determine the impacts in other areas, e.g., the number of households will be used to estimate future housing needs. This process, as applied in this study is outlined in Table 27. The resulting population impacts are shown in Table 26.

Table 27

PROJECTED EMPLOYMENT AND POPULATION ASSOCIATED WITH THE MINE/MILL COMPLEX

Year	*Average Annual Mine/Mill Employment*		*Total New Employment*			*Local Employment*	*Nonlocal Employment*	*New Households*	*New Population*
	Const.	*Perm.*	*Const.*	*Perm.*	*Total*				
1980	388	141	582	289	871	87	789	741	1,632
1981	276	345	414	770	1,184	118	1,066	951	2,589
1982	0	400	0	975	975	98	877	731	2,252
1983	0	400	0	1,000		100	900	750	2,310
1988	0	400	0	1,000		100	900	750	2,310
1993	0	400	0	1,000		100	900	750	2,310
1998	0	400	0	1,000		100	900	750	2,310
2001	0	400	0	1,000		100	900	750	2,310

Source: Abt Associates Inc., 1980.

The principal assumptions used to estimate various employment and population are listed below.

Construction:

Labor Supply	--10 percent local (Nye County)/ 90 percent nonlocal.
Total Employment Multiplier	--1.5 (assumed instantaneous response).
Immigrant Worker Characteristics	--One worker per household. 40 percent single-member households, either single or married without families accompanying. 60 percent of the married households are accompanied by families. 1.6 children per average household with family accompanying worker.
Residency	--90 percent Tonapah. --10 percent elsewhere (including 5 percent to the balance of Nye County and 5 percent out of Nye county).

Permanent:

Labor Supply	--10 percent local (Nye County)/ 90 percent nonlocal.
Total Employment Multiplier	--2.5 (70 percent first period response, 30 percent second period response).
Immigrant Worker Characteristics	--2.2 workers per average household. 20 percent single-member households. 80 percent married households, all accompanying primary worker. 1.6 children per average married household.
Residency	--90 percent Tonopah. --10 percent elsewhere (5 percent in Nye County; 5 percent out of Nye County).

Several of these assumptions warrant additional explanation. The first is the assumption that 10 percent of the labor supply will be local. Given the extremely low unemployment rate in Nye County, currently less than 3.0 percent, this might seem unreasonable. However, it is believed that this level can be achieved with local labor coming from some or all of the following sources: attracting people into the labor force who are not

currently searching for employment (and therefore are not listed as unemployed); a change in status of part-time employees to full-time; and attracting unemployed parties from neighboring counties, who by commuting would not increase the population. Taken together, it is reasonable to think that these sources are capable of supplying 10 percent of the labor requirements.

The second is the difference in the assumed response rates, i.e., instantaneous for construction versus lagged for operating. A lagged response is used for changes in the operating work force to reflect the inability of an economy to expand rapidly. A discussion of this affect can be found in A Framework for Projecting Employment and Population Changes Accompanying Energy Development.7/

Another assumption requiring clarification is the use of annual averages of the construction work force to estimate secondary employment increases, as opposed to using quarterly figures. The use of quarterly estimates would not only show more fluctuation, but they would also show a higher peak response. This does not coincide with the typical response of businesses in rural areas to relatively short-term construction work forces. Thus, an annual average was used in an attempt to more realistically estimate the effect of the mine/mill construction work force.8/

The immigrant worker characteristics were compiled by Abt Associates Inc. from a variety of sources, including: A Framework for Projecting Employment and Population Changes Accompanying Energy Development; Action Handbook--Managing Growth in the Small Community; and Rapid Growth from Energy Projects.7/9/10/ While some of these characteristics are taken directly from one or more of the above studies, others reflect the professional judgment of the analyst in adopting the assumptions to the current study. For example, all of the above studies typically assume that the secondary employment multiplier for construction is 0.6 service workers per basic construction worker. However, the value for this multiplier in these studies range from 0.3 to 0.9.10/ Given this the 0.6 multiplier is often used for energy projects having longer construction periods than the proposed action, as well as larger work forces, it was believed that a lower value was warranted. However, the use of 0.5 versus 0.4 or some other value, is strictly judgmental.

A final point was the use of a total employment multiplier of 2.5 for the permanent work force in contrast to the current estimated multiplier of 2.4. The higher multiplier reflects an expected increase in the size and variety of the service sector. In other words, Tonopah's status as a trade center will be enhanced to the point that it will offer a broader scope of services than it currently does. This should benefit the economy in that a greater portion of current and future incomes will be spent locally as well as gaining increased sales of goods and services to outlying areas who currently shop elsewhere.

Land Use Impacts

The land use impacts assessed here are confined to estimating the off-site demands for the development of land for housing, commercial use, and public use. On-site land use effects are treated descriptively only. These increased demands are associated with the increased direct and indirect employment levels and related population increases.

A standard procedure for assessing land use impacts is to relate typical increments of increased land development to a standard increment of increased or immigrant population, for example, 100 persons. This procedure is particularly well suited to impact assessment studies, since estimates of both baseline and incremental population growth are primary variables obtained in the assessment procedure. The total net impacts are thus easily derived.

For this study, the standard increment was 12.67 acres/100 persons. This total comprises the following elements:

2.95 acres for streets and public right-of-ways
1.32 acres for commercial/industrial uses
2.0 acres for public facilities/recreation
6.40 acres for housing

These values were taken from a recent planning manual for growth management in small communities, the Action Handbook for Small Communities Facing Rapid Growth, and are for planning purposes only.9/ They reflect neither the existing conditions nor the values presented in the 1970 General Plan. Rather, they are generalized values derived from reviews of other communities which have experienced similar or more rapid growth.

Housing

A review of the historical trends in local housing vacancy rates and the changes in the housing stock will frequently provide useful insights into how a local housing market will respond to the increased demands for housing brought about by the increased population. The distribution among housing types and the condition of the housing stock can also provide insights into the local housing market as well as inferences into the changing economic/demographic character of the population. Such analysis requires consistent and timely data on vacancy rates, additions to the housing supply, new construction by dwelling type, etc. Unfortunately, such data were not available for Nye County, the most recent comprehensive data available being from the 1970 Census.

As a result of these problems, the analysis of housing conditions is based upon conversations with residents and officials in the area, and personal observation. The conclusions of this analysis are threefold:

- There is a very limited amount of vacant housing available in Tonopah, either for sale or rent.

- o Mobile homes are accounting for a majority of new housing units in Tonopah, and probably within the county as a whole.

- o There is probably a continuing problem of sub-standard or inadequate housing in Nye County, although the portion of the total housing so identified is probably declining.

For the baseline analysis, it was therefore assumed that any growth in population will translate into demand for housing which would require a parallel growth in the supply of housing. A discussion of the housing supply analysis is provided at the end of this section. The number of additional housing units required was determined by assuming the need for one additional unit for each additional 2.8 persons expected under the baseline scenario. It was further assumed that of these additional units, 45 percent would be mobile homes, 12 percent multi-famiy units, and 43 percent single-family homes.2/

The assessment of the effects of the proposed action utilizes a slightly different methodology in that it relies upon an estimate of the additional number of households to determine the housing requirements. This is based upon the assumption that one dwelling unit will be required for each household. Using these assumptions, the average number of people per household ranges between 2.3 and 3.1 during the projection period. This range reflects the differences between the characteristics of the construction and the operating work forces.

The housing preferences for the project-related employment are as follows:

Construction:

- o 20 percent will reside in single family homes.

- o 15 percent will reside in multi-family dwellings.

- o 40 percent will reside in mobile homes.

- o 25 percent will reside in other dwellings, including travel trailers, boarding houses, etc.

Permanent:

- o 35 percent will reside in single family homes.

- o 15 percent will reside in multi-family dwellings.

- o 50 percent will reside in mobile homes.

These assumptions reflect the professional judgment of the analyst, based on a review of various studies, including those mentioned in the discussion of immigrant characteristics above, and discussions with local officials regarding recent housing trends in Nye County. The summation of the figures thus derived yielded the total estimates of housing needs.

As mentioned in the employment/population methodology description, the employment and, therefore, the household estimation procedures rely on an annual average employment figure. In fact, there would be several periods during the construction period when total construction employment would exceed the average figures used, especially when the transmission line and housing development work forces are included, resulting in a temporary demand for housing. These housing demands would primarily be for "other" dwelling units, and would result in a total housing need higher than that indicated in Chapter 3. However, because of the temporary nature of these needs, they were not estimated or included in the presentation of housing needs since they would tend to over-estimate the effect of the proposed action.

The analysis of housing supply in Nye County is based on an assessment of historical trends, which are assumed to continue through the baseline period. Specific, worst-case assumptions regarding the supply of housing with the proposed action were also developed. This analysis was provided to Abt Associates by Environmental Research and Technology, Inc.

It was assumed that the baseline supply capacity of the Nye County housing industry would continue at a level equal to the estimated average annual production of housing in the county from 1970 to 1979. The level of production was estimated by dividing the average annual population change by 2.8, the average number of persons per household in Nye County in 1970. The result was an estimate of 95 housing units per year had been added to the Nye County housing supply. This trend was assumed to continue for the baseline analysis.

The analysis of the future housing situation, assuming the construction of the professional action, includes data on Anaconda plan to take an active role in supplying housing.

Anaconda has acquired approximately 600 acres of land directly northwest of the existing community of Tonopah. A conceptual master plan has been drafted which provides for residential, commercial, transportation, public and recreational uses on the site in the following amounts:

Parks, greenbelts, common areas and future public facilities	120 acres
"Double-wide" modular home park	150 lots
Condominium or apartment land	300 units
Single-family home subdivision	250 lots
Future residential development	300 units
Commercial and streets	Not quantified

To date, Anaconda has received tentative approval for the master plan and the subdivision plan from Nye County and "various state agencies." Construction has begun on a 76 unit apartment-motel, a contract has been let to develop the 150 lot modular home park, and contracts are being negotiated for the construction of a 50 unit apartment/condominium complex.

For purposes of the housing analysis the following assumptions were made regarding the Anaconda housing development:

1. The 76 unit apartment-motel would be completed on schedule for April, 1980 occupancy.

2. The 150 lot modular home park would be developed on schedule--with utilities to each lot and pads constructed--ready for units by May, 1980. However, since on actual units have been committed, none were assumed to be in place during 1980.

3. A 50 unit apartment/condominium complex would be completed on schedule for July, 1980 occupancy.

4. The 250 lot single-family subdivision would be developed on schedule--with utilities and streets to each lot--ready for construction of homes to begin by April, 1980. However, since no construction has been committed, no homes were assumed to be in place during 1980 above and beyond the average home construction levels in Nye County in recent years.

These are considered to be conservative, worst-case assumptions.

Using the above estimates of the supply and demand of housing, an assessment of the anticipated housing situation can then be performed (see Chapter 3).

School Enrollment

As with the baseline population projections, the forecasts of future public school enrollments in the Nye County school system and in the Tonopah enrollment area rely heavily on the continuation of recent trends into the future. This analysis uses a five step procedure to determine: (1) future total county student enrollment (K-12); (2) total enrollments in Tonopah schools; (3) the distribution of students in elementary and secondary levels; (4) the number of immigrating pupils assocaited with the project; and (5) the elementary/secondary distribution of those students. The following assumptions were developed by Abt Associates, based on a review of school district data and a review of references #7 through #11.

- Baseline Enrollment Levels. In 1970, total enrollment as a percentage of population was approximately 20.6 percent. Based upon 1979 special census figures and September 21, 1979 enrollments as reported in the Tonopah Times-Bonanza, that percentage

has now risen to 21.9 percent. This increase is consistant with the level of natural population increase which occurred between 1970-1979. An unknown number of students from Esmerelda County attend high school in Tonopah, raising the percentage relationship between school enrollments and total population. However, this number is thought to be relatively small. Because of increasing birth rates in recent years and the effects of new immigration, a constant rate of 21.5 percent of total population was assumed and used to estimate the baseline enrollment figures.

- o Tonopah School Enrollments. Historical enrollment data from the Nye County School District indicate that Tonopah's share of total county enrollments have been declining steadily since 1975. Based on current enrollment figures, Tonopah schools now account for 28 percent of the total district enrollments. It was assumed that Tonopah's schools would continue to account for 28 percent of the total enrollments in the future.

- o Elementary/Secondary Distribution. The same school enrollment data cited above indicate that secondary enrollments in Tonopah have accounted for an average of 53 percent of the total town enrollments in the past five years. This figure is higher than normal. It is apparently a result of a number of students from Round Mountain, Manhattan, and Esmerelda County attending high school in Tonopah. Since the future baseline conditions for these three communities were not assessed, it was assumed that they would continue to send students to Tonopah and that the relationship described above would continue.

- o Migration-Related Enrollment. There have been several cross-sectional studies of the characteristics of migrant construction and oeprating work forces in rural western states undertaken in recent years. The results of these studies indicate that there are approximately .22 pupils added for each immigrant person for construction activities, and an estimated .27 pupils are added for each operating related permanent immigrant. These values were used to estimate the number of project related students. Although some of the project induced population growth was assumed to reside somewhere besides Tonopah, all of the induced enrollment was assigned to the Tonopa schools.

- o Elementary/Secondary Distribution for Migration-Related Enrollment. The same cross-sectional studies indicate that the distribution of students is different for construction and permanent employment. These differences reflect both the different age composition of the families and the number of children in each family. The distributions are .3 secondary and .7 elementary for construction related migration, and .4 secondary and .6 for elementary for operations related migration. Again, these were assumed to remain constant throughout the analysis period.

A final note concerning schools enrollments concerns the period of time reported. The impacts of the proposed actions are only reported through 1985. Projections beyond that point in time are tenuous at best

due to the lack of specific information on the composition of the school age population. As the district receives more current information it will be in a position to prepare more reliable enrollment estimates and assess its staffing and facility needs.

Transportation

The analysis of the existing and future environment for the transportation component has two major elements:

- o A qualitative description and discussion of the local transportation system.
- o An assessment of the adequacy of the highway system in the immediate Tonopah area and the access route to the mine/mill site.

The procedures and assumptions used to perform the analysis are essentially those described in the Transportation and Traffic Engineering Handbook, which are adopted from the Highway Capacity Manual: Special Report #87.12/13/ The data for this analysis were obtained from the 1978 Annual Average Daily Traffic Map, and personal communications with Mr. Ed Gill.14/15/

The analysis is by necessity simplistic. Much of the analysis described by the above references was designed to be used with more detailed and disaggregated data, e.g., hourly traffic volumes, peak hour and five-minute interval counts, etc. Given the available data, several simplifying assumptions were made in this analysis. These assumptions are fairly restrictive, simulating a worst-case analysis. The following discussion details the methodology used.

The foundation of the analysis is an assessment of the adequacy of a given highway segment to carry various levels of traffic. Adequacy is defined to mean an estimated peak hour traffic volume less than the estimated hourly traffic capacity of a given highway segment. The calculation of hourly capacity is based on the following formula:

$SV = (MSV)(W)(T)$ where,

SV = the capacity or service volume, defined for a given "level of service,"

MSV = the approximate maximum service volume for a two lane, two way rural highway, adjusted for the degree of visibility afforded to drivers on that highway segment,

W = an adjustment for the width of lanes and the clearance between the edge of the roadway surface and any obstacles, and

T_p = an adjustment for traffic mix and highway grades.

The concept of the "level of service" discussed above is a qualitative measure describing the restrictive effects of variables upon the ability of a given segment of highway to carry various volumes of traffic. The "level of service" concept indirectly allows for the determination of the maximum volume of traffic, i.e., capacity, which a highway can accommodate while delivering a certain quality of service. For this analysis, a "C" level of service was used to determine the capacity of all highway segments except S.R. 89, which since it is a graveled road, has an undefined capacity. A "C" level of service is defined as a zone of stable traffic flow, but with some restriction of speed and maneuverability.

The following table presents the calculations of capacity for each segment and the factors used in those calculations. For additional detail, the reader is directed to the discussion of capacity in the Transportation and Traffic Engineering Handbook.12/

Following the determination of capacity, the next step is to determine the current maximum hourly volume for each road segment. This was accomplished by multiplying the annual average daily traffic (AADT) figures times factors relating typical peak hour traffic to AADT volumes (see the Handbook, page 85). The AADT volumes were obtained from traffic maps of the Nevada State Highway Department, while the peak hour volumes were assumed to be 20 percent of total daily traffic for the rural highways, and 11 percent for the location in the center of town. The resulting capacity and volume estimates are presented in Chapter 2. Using the definition of capacity presented above, all segments are currently providing at least a "C" level of service.

For baseline analysis purposes, AADT was assumed to be a direct function of the population of Tonopah. Thus, traffic will grow at the same rate as Tonopah's population. Traffic data for 1978 and the estimated 1978 population of Tonopah were used as the base values. Using the above assumption will tend to overestimate the growth in traffic volume as much of the current traffic is through traffic which is unrelated to circumstances in Tonopah. Rather, Tonopah is a community through which motorists must pass on their way to some other destination. Given current trends in fuel prices and driving habits, it is unlikely that traffic growth for this element of traffic will match the projected baseline growth. Therefore, total traffic volumes estimated on the basis of population will tend to be higher than the actual expected volumes. Again, the results are presented in Chapter 2, showing that the highway network will continue to provide adequate capacity for the traffic.

The final element of the analysis involves the evaluation of adequacy of the highway system in the future, assuming the construction of the proposed action. The analysis focuses on three points in time; 1980, 1983, and 2001. These years correspond to the beginning of construction, the first year of production, and the last year of operations. Traffic volumes were again assumed to be a direct function of Tonopah's population for all segments except the combination of highways providing

access from Tonopah to the mine/mill site, i.e., U.S. 95 and S.R. 89. The peak volumes for this routes were estimated using the assumption that each worker would make two trips per day, i.e., one round-trip, and that there would be 130 and 100 assorted trips per day to the mine/mill site during the construction and operating periods, respectively. All of these trips were further assumed to occur during two hours for the construction period (one work shift per day), and during three hours for the operating period (three shifts per day). The resulting estimates of peak traffic were then added to the estimated baseline peak volumes to derive the total estimated peak volume. These estimates were then compared to the estimated highway capacities for each segment. It was assumed that S.R. 89 would be paved if the proposed action is implemented, and would have a hourly capacity of 752 vehicles per hour (see Table 28). The results are presented in Chapter 3.

In all of the above analyses, a volume/capacity ratio of less than 1.0 is to be interpreted that a "C" level of service is being maintained. Thus, while a motorist familiar with the area may detect a difference in traffic volume as growth occurs, no significant deterioration of service has occurred. At the same time, a volume/capacity ratio exceeding 1.0 means that although the quality of service has detriorated during the peak hour, the higher quality of service may continue to be provided for the remaining hours of each day. Finally, although the above analysis can indicate a deterioration in service, it neither quantifies the extent of the reduction, nor the motorists' perception of the reduction. Therefore, care must be exercised in interpreting the above results as justification for improving or changing the existing highway system.

Table 28

MAXIMUM HOURLY SERVICE VOLUMES FOR VARIOUS HIGHWAY SEGMENTS [a/]

Route	Operating Assumptions						Maximum Service Volume (MSV) (Vehicles/Hr.)	Width of Lane Adjustment (W)	Traffic Mix and Grade Adjustment (T)	Maximum Hourly Service Volume [b/] (Vehicles/Hr.)
	Operating Speed (MPH)	Average Speed (MPH)	Visibility Factor	Width of Lane and Shoulders	Percent of Truck Traffic	Grade (Percent)				
U.S. 95 and 6, Northwest of Tonopah	40+	60	.80	12/2	5	0-2	1,220	.825	.95	156
U.S. 95 and 6, Bryan Ave. in Tonopah [c/]	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	2,000
U.S. 95--South of Tonopah	40+	60	.80	12/2	5	0-2	1,220	.825	.95	956
U.S. 6--East of Tonopah	40+	60	.80	12/2	5	0-2	1,220	.825	.95	956
S.R. 89--North of Tonopah [a/]	40+	50	.80	9/0	5	0-2	1,100	.72	.95	752
S.R. 376--North of Nye County Airport	40+	50	.80	11/0	5	0-2	1,060	.62	.95	624

[a/] Defined for "C" level of service, except S.R. 89, which has an undefined capacity for the baseline because it is a graveled road. The capacity shown assumes it will be paved, if the proposed action is implemented.

[b/] Capacity was assumed constant over the period of analysis for all roads except S.R. 89 discussed above.

[c/] Because of the in-town location of this point, the same methodology does not apply. Rather, an assumed capacity of 500 vehicles per lane per hour was used.

Source: Abt Associates Inc., 1980.

LEGISLATION AFFECTING LOCAL GOVERNMENT AND SCHOOL DISTRICT FINANCES IN NEVADA

As discussed in Chapters 2 and 3, the Nevada State Legislature recently adopted legislation which places limits upon the expenditures of local governments and school districts, increases therein, and the combined unit taxing rate for all overlapping taxing units, e.g., the county and school districts. The law established base values for expenditures, formulas for calculating allowable increases or necessary decreases from that base, and fixed the combined unit taxing rate at $3.64/$100 of assessed valuation.16/

A reprint of that law and the computation worksheets used to calculate changes in the expenditures ceilings are provided on the following pages. The sections of the law which are of particular relevance to this study are outlined with a bold black line with a brief description of each section provided at the bottom of the page. A detailed analysis of the law, or its financial implications, was not performed. Rather, the material is provided so that the reader can become acquainted with the law and how it could possibly affect the financial resources of Nye County, and the town of Tonopah, and the Nye County School District. A copy of the law and the worksheets can be obtained by writing:

The State of Nevada
Department of Taxation
Capital Plaza
1100 East Williams
Carson City, Nevada 89710

Glenn Atkinson has prepared a discussion of the law as it relates to school districts entitled, School Finance and Tax Reform in Nevada. It is available through the Bureau of Business and Economic Research, University of Nevada, Reno.17/

(REPRINTED WITH ADOPTED AMENDMENTS)
FIFTH REPRINT S. B. 204

SENATE BILL NO. 204—COMMITTEE ON TAXATION

FEBRUARY 9, 1979

Referred to Committee on Taxation

SUMMARY—Proposes to remove sales and related taxes from food and provides tax abatement for certain homeowners and renters. (BDR 32-1480)

FISCAL NOTE: Effect on Local Government: Yes.
Effect on the State or on Industrial Insurance: Yes.

EXPLANATION—Matter in *italics* is new; matter in brackets [ ] is material to be omitted.

AN ACT relating to governmental finance; fixing statutory limits on the state budget, on expenditures by local governments and on the general tax rate; making appropriations; and providing other matters properly relating thereto.

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

SECTION 1. Chapter 361 of NRS is hereby amended by adding thereto the provisions set forth as sections 2 to 3.5, inclusive, of this act.

SEC. 2. *The total ad valorem tax levy for all public purposes must not exceed $3.64 on each $100 of assessed valuation, or a lesser or greater amount fixed by the state board of examiners if the state board of examiners is directed by law to fix a lesser or greater amount for that fiscal year.*

SEC. 3. *1. In any year in which the total taxes levied by all overlapping units within the boundaries of the state exceed the limitation imposed by section 2 of this act, and it becomes necessary for that reason to reduce the levies made by any of those units, the reduction so made must be in taxes levied by those units (including the state) for purposes other than the payment of bonded indebtedness, including interest thereon.*

2. The taxes levied for the payment of bonded indebtedness and the interest thereon enjoy a priority over taxes levied by each such unit (including the state) for all other purposes where reduction is necessary to comply with the limitation imposed by section 2 of this act.

SEC. 3.5. *All household goods and furniture used by a single household and owned by a member of that household are exempt from taxation.*

SEC. 4. NRS 361.455 is hereby amended to read as follows:

361.455 1. Subsequent to the approval of the final budgets for the

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Sections 1, 2, 3, and 3.5: Set forth the amendments including the total tax levy limit of $3.64/$100 of assessed valuation; establishes a priority for the payment of bonded indebtedness; and exempts household goods and furniture used and owned by a single household from taxation.

Section 4: Desribes the process by which the total tax rate is defined and the procedures to be used to reduce the rate if the rate so established exceeds the limit established in Section 2 above.

various local governments as defined in NRS 354.474 and their submission to the department, for examination and approval, the Nevada tax commission shall certify to the board of county commissioners of each of the several counties the combined tax rate necessary to produce the amount of revenue required by the approved budgets, and shall certify that combined rate, to each of the boards of county commissioners.

2. Immediately upon adoption of the final budgets, if the combined tax rate together with the established state tax rate exceeds the [constitutional tax rate limit.] *limit imposed by section 2 of this act,* the chairman of the board of county commissioners in each county concerned shall call a meeting of the governing boards of each of the local governments within the county for the purpose of establishing a combined tax rate that conforms to the [constitutional limitations.] *statutory limit.* The chairman shall convene the meeting no later than May 5 of each year.

3. The governing boards of the local governments shall meet in public session and the county clerk shall keep appropriate records, pursuant to regulations of the department, of all proceedings. The costs of taking and preparing the record of the proceedings, including the costs of transcribing and summarizing tape recordings, shall be borne by the county and participating incorporated cities in proportion to the final tax rate as certified by the department. The chairman of the board of county commissioners or his designee shall preside at the meeting. The governing boards shall explore areas of mutual concern so as to agree upon a combined tax rate that does not exceed the [constitutional] *statutory* limit. [That portion of the proposed tax rate of the county school district for the operation and maintenance of public schools composed of the mandatory tax levy specified in paragraph (a) of subsection 2 of NRS 387.195 and the recommended tax levy to be made pursuant to paragraph (b) of subsection 2 of NRS 387.195 may not be reduced by action of the governing boards in order to establish a combined tax rate conforming to constitutional limitations; but that portion of the proposed tax rate of the county school district specified for debt service requirements pursuant to paragraph (c) of subsection 2 of NRS 387.195 is subject to a rate adjustment by action of the governing boards pursuant to this section.]

4. The governing boards shall determine final decisions by a unanimous vote of all entities present and qualified to vote, as defined in this subsection. No ballot may be cast on behalf of any governing board unless a majority of the individual board is present. A majority vote of all members of each governing board is necessary to determine the ballot cast for that entity. All ballots must be cast not later than the day following the day the meeting is convened. The district attorney shall be the legal advisor for such proceedings.

5. The county clerk shall immediately thereafter advise the department of the results of the ballots cast and the tax rates set for local governments concerned. If the ballots for the entities present at the meeting in the county are not unanimous, the county clerk shall transmit all records of the proceedings to the department within 5 days after the meeting.

6. If a unanimous vote is not obtained and the combined rate in any county together with the established state tax rate exceeds the [constitutional tax rate] *statutory* limit, the department shall examine the record of the discussions and the budgets of all local governments concerned. On May 25 or, if May 25 falls on a Saturday or Sunday, on the Monday next following, the Nevada tax commission shall meet to set the tax rates for the next succeeding year for all local governments so examined. In setting the tax rates for the next succeeding year the Nevada tax commission shall not reduce that portion of the proposed tax rate of the county school district for the operation and maintenance of public schools, [composed of the mandatory tax levy specified in paragraph (a) of subsection 2 of NRS 387.195 and the recommended tax levy to be made pursuant to paragraph (b) of subsection 2 of NRS 387.195.]

7. Any local government affected by a rate adjustment made in accordance with the provisions of this section, which necessitates a budget revision shall file a copy of its revised budget by June 30 next after the approval and certification of the rate by the Nevada tax commission.

8. A copy of the certificate of the Nevada tax commission sent to the board of county commissioners shall be forwarded to the county auditor.

SEC. 5. NRS 361.482 is hereby amended to read as follows:

361.482 [When an] *The* ad valorem tax on property [is] levied by the legislature [for a designated fiscal year, such tax] shall be collected, in one sum or in installments as provided by this chapter, during [the designated] *each* fiscal year upon:

1. Property assessed during that fiscal year which is not placed upon the secured roll.

2. Property assessed during the preceding fiscal year which was placed upon the secured roll.

SEC. 6. Chapter 118 of NRS is hereby amended by adding thereto a new section which shall read as follows:

1. Unless exempted by subsection 3, every landlord of real property leased or otherwise rented to a tenant shall deliver to the tenant in July of each year, and whenever the periodic rent changes, a statement which shows separately for each periodic payment of rent:

(a) The amount which represents property taxes paid by the landlord; and

(b) The remainder of that payment.

2. If the property rented is one of several upon which the landlord pays taxes together, the amount which represents property taxes must be calculated by:

(a) Apportioning the total property tax paid for the year upon the entire property among the individual properties rented according to their respective areas.

(b) Reducing the amount so apportioned to each particular property for the year by the appropriate fraction to correspond to the period for which rent on it is paid.

3. This section does not apply to:

(a) Any property covered by a written agreement which requires the

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Section 4: (continued)

tenant to pay the property tax or otherwise provides for calculation and notice to the tenant of its amount.

(b) Any lodging unless it contains its own cooking and toilet facilities, separate from other living quarters.

(c) Any room in a hotel or motel.

(d) Any concession within a larger commercial enterprise, or any other property not customarily used separately from adjacent units.

(e) Any property for which the rent is a share of sales or profit.

4. The statements required in July 1979 by subsection 1 must show, in addition to the information required as of the date the statement is prepared, the comparable information as of July 1978. Each landlord of property which is subject to this section shall reduce the periodic rent otherwise payable by an amount equal to any reduction from 1978 to 1979 of the amount which represents property taxes as shown in the statements required by that subsection.

5. This section does not purport to regulate the total amount of rent payable.

6. A landlord who fails to reduce the periodic rent in accordance with subsection 4 is liable to each tenant whose rent was not properly reduced for an amount equal to three times the amount which was overpaid by the tenant, unless the landlord shows good cause for the failure.

SEC. 7. NRS 244.527 is hereby amended to read as follows:

244.527 1. If the special fund created by the proceeds of the assessments is insufficient to pay such bonds and interest thereon as they become due, the deficiency shall be paid out of any assets in the general fund of the county, regardless of source, which are otherwise legally available therefor.

2. If the general fund is insufficient to pay any such deficiency promptly, the board of county commissioners shall levy [, and it shall be its duty to levy,] general (ad valorem) taxes upon all property in the county which is by law taxable for state, county and municipal purposes, without regard to any statutory tax limitation existing on or after April 23, 1969, and without limitation as to rate or amount, fully sufficient, after making due allowance for probable delinquencies, to provide for the prompt payment of such bonds as they become due, both principal and interest, but subject to the limitation of section 2 of article 10 of the constitution of the State of Nevada.

[3. Any such tax levy shall enjoy the same priority as provided by NRS 350.600 for other taxes levied for the payment of bonded indebtedness over taxes levied for all other purposes where reduction is necessary in order to comply with the limitations of section 2 of article 10 of the constitution of the State of Nevada.]

SEC. 8. NRS 244.911 is hereby amended to read as follows:

244.911 1. If the special fund created by the proceeds of the assessments is insufficient to pay such bonds and interest thereon as they become due, the deficiency shall be paid out of any assets in the general fund of the county, regardless of source, which are otherwise legally available therefor.

2. If the general fund [shall be] *is* insufficient to pay any such deficiency promptly, the board shall levy [, and it shall be its duty to levy,]

general (ad valorem) taxes upon all property in the county which is by law taxable for state, county and municipal purposes, without regard to any statutory tax limitation now or hereafter existing, and without limitation as to rate or amount, fully sufficient, after making due allowance for probable delinquencies, to provide for the prompt payment of such bonds as they become due, both principal and interest, but subject to the limitation of section 2 of article 10 of the constitution of the State of Nevada.

[3. Any such tax levy shall enjoy the same priority as provided by NRS 350.600 for other taxes levied for the payment of bonded indebtedness over taxes levied for all other purposes where reduction is necessary in order to comply with the limitations of section 2 of article 10 of the constitution of the state.]

SEC. 9. NRS 271.495 is hereby amended to read as follows:

271.495 1. If the special fund created by the proceeds of the assessments is insufficient to pay such bonds and interest thereon as they become due, the deficiency shall be paid out of any assets in the general fund of the municipality, regardless of source, which are otherwise legally available therefor.

2. If the general fund [shall be] *is* insufficient to pay any such deficiency promptly, the governing body shall levy [, and it shall be its duty to levy,] general (ad valorem) taxes upon all property in the municipality which is by law taxable for state, county and municipal purposes, without regard to any statutory or charter tax limitation now or hereafter existing, and without limitation as to rate or amount, fully sufficient, after making due allowance for probable delinquencies, to provide for the prompt payment of such bonds as they become due, both principal and interest, but subject to the limitation of section 2 of article 10 of the constitution of the state.

[3. Any such tax levy shall enjoy the same priority as provided by NRS 350.600 for other taxes levied for the payment of bonded indebtedness over taxes levied for all other purposes where reduction is necessary in order to comply with the limitations of section 2 of article 10 of the constitution of the state.]

SEC. 10. NRS 309.337 is hereby amended to read as follows:

309.337 The provisions of the Local Government Securities Law, as from time to time amended, [shall be applicable] *apply* to any securities authorized to be issued under NRS 309.332 to 309.339, inclusive, but in the event of conflict the provisions of NRS 309.332 to 309.339, inclusive, [shall be controlling. The application of the Local Government Securities Law shall include, without limitation, the application of NRS 350.600 to any general obligation of the district.] *control.*

SEC. 11. Chapter 353 of NRS is hereby amended by adding thereto a new section which shall read as follows:

1. In preparing the state budget for each biennium, the chief shall not exceed the limit upon total proposed expenditures for purposes other than construction from the state general fund calculated pursuant to this section. The base for each biennium is the total expenditure, for the purposes limited, from the state general fund appropriated and authorized by the legislature for the biennium beginning on July 1, 1975.

2. The limit for each biennium is calculated as follows:

(a) The amount of expenditure constituting the base is multiplied by the percentage of change in population for the current biennium from the population on July 1, 1974, and this product is added to or subtracted from the amount of expenditure constituting the base.

(b) The amount calculated under paragraph (a) is multiplied by the percentage of inflation or deflation, and this product is added to or subtracted from the amount calculated under paragraph (a).

(c) If the amount resulting from the calculations under paragraph (a) and (b) represents a net increase over the base biennium the chief may increase the proposed expenditure accordingly. If the amount represents a net decrease, the chief shall decrease the proposed expenditure accordingly. If the amount is the same as in the base biennium, that amount is the limit of permissible proposed expenditure.

3. The revised estimate of population for the state issued by the United States Department of Commerce as of July 1, 1974, must be used, and the governor shall certify the percentage of increase or decrease in population for each succeeding biennium. The Consumer Price Index published by the United States Department of Labor for July preceding each biennium must be used in determining the percentage of inflation or deflation.

4. The chief may exceed the limit to the extent necessary to meet situations in which there is a threat to life or property.

SEC. 12. NRS 353.150 is hereby amended to read as follows:

353.150 NRS 353.150 to 353.246, inclusive, and section 3 of [Senate Bill No. 171 of the 60th session of the Nevada legislature, and] *chapter 78, Statutes of Nevada 1979,* sections 5 and 6 of [this act] *chapter 364, Statutes of Nevada 1979, and section 11 of this act* may be cited as the State Budget Act.

SEC. 13. Chapter 354 of NRS is hereby amended by adding thereto the provisions set forth as sections 14 to 16, inclusive, of this act.

SEC. 14. *1. The amount budgeted by a local government, except a school district, pursuant to NRS 354.598 for the fiscal year commencing July 1, 1978, for expenditure from its general fund, less any amount allowed as an ending balance for that fiscal year and less any contribution to the state for aid to the medically indigent, is the base from which the permissible expenditure from that fund in subsequent years must be calculated.*

2. The governing body of a local government, except as a school district, shall calculate the level of permissible expenditure from its general fund for a given year as follows:

(a) The amount of expenditure in the base year is multiplied by the percentage of change in population in the current year from the base year and this product is added to or subtracted from the amount of expenditure in the base year.

(b) The amount calculated under paragraph (a) is multiplied by 80 percent of the average annual percentage of inflation or deflation for the 60 months preceding the month of November preceding the fiscal year for which the budget is prepared and further multiplied by the number of years from July 1, 1978, to July 1 of the year for which the budget is prepared, and this product is added to or substracted from the amount calculated under paragraph (a).

(c) If the amount resulting from the calculations under paragraphs (a) and (b) represents a net increase over the base year, a governing body may increase its expenditure accordingly. If the amount represents a net decrease, the governing body shall decrease its expenditure accordingly. If the amount is the same as in the base year, expenditures must not be increased.

3. The department of taxation shall disapprove any budget of a governing body which does not comply with the limitations of subsections 1 and 2.

4. On or before December 1 of each year, the governor shall certify the percentage of increase or decrease in population for each county and city. Every other local government, except a school district, must use the percentage of increase or decrease in population for the county in which it, or the largest fraction of its population, is located. If the Nevada tax commission finds that the percentage of increase or decrease in population so determined for a general improvement district or other special district differs grossly from the actual percentage, it may determine an equitable percentage to be used. Any local government which believes that the percentage certified by the governor is not a true figure may appeal the certification to the tax commission, which may increase or decrease the percentage as the evidence before it reasonably requires. The decision of the tax commission is final.

5. The Consumer Price Index for All Urban Consumers, published by the United States Department of Labor, must be used in determining the percentage of inflation or deflation.

6. The governing body of a local government, except a school district, may exceed the limitation imposed by subsections 1 and 2:

(a) To the extent necessary to meet situations not reasonably foreseeable in which there is a threat to life or property, or requirements for expenditure which are not subject to the control of the local government, if in either case the legislative commission approves the proposed expenditure.

(b) To the extent necessary to provide a new or expanded program of service if:

(1) The program of service is to be supported entirely by ad valorem taxes which do not exceed the statutory limit on ad valorem taxes; and

(2) The governing body proposes the program and it is approved by a majority of the voters voting on the question in a general election or a special election called for that purpose.

Such an approval may be made effective for not more than 2 years.

SEC. 15. *1. Except as otherwise provided in this section, for the purposes of NRS 354.599 and 354.615 and section 14 of this act, "general fund" means the aggregate of all funds supported in whole or in part by taxes or license fees, except a tax on aviation fuel.*

2. The term does not include:

(a) An enterprise fund;

(b) An intragovernmental service fund or a trust or agency fund;

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Section 14: Establishes the expenditure base for general fund expenditures for local governments and the procedure to be used to calculate the permissible level of expenditures from the general fund, for any given year.

Section 15: Defines the "general fund" and exceptions thereto. which are subject to the limitations imposed by this statute.

(c) A fund set up to account for one or more projects of capital construction or for revenues from special assessments;
(d) A debt service fund; or
(e) A regional street and highway fund.
3. The limit imposed by section 14 of this act does not apply to expenditures:
(a) Of a fair and recreation board or a hospital, except the expenditure of revenue from ad valorem taxes or license fees for gaming;
(b) Of a metropolitan police department;
(c) From money accumulated during several years for a specified purpose; or
(d) Of money received from the Federal Government.
4. The Nevada tax commission shall determine the status of any disputed fund by applying generally recognized principles of governmental accounting. The director of the department of taxation shall, in cases where the designations or sources of revenue for the funds of a local government are changed, determine the manner of taking the changes into account for the purposes of section 14 of this act. If the proportionate contribution of a local government to the support of an agency which is jointly supported by two or more local governments and for which a separate budget is prepared pursuant to this chapter is changed after the base year, the director shall appropriately adjust the calculations required by section 14 of this act.

SEC. 16. *1. The Nevada tax commission shall:*
(a) Provide by regulation for reasonable balances to be on hand in funds at the end of a fiscal year, and for the establishment of reasonable contingency funds.
(b) Establish in each case the base from which permissible expenditures from the general fund are to be calculated for a local government established after July 1, 1978.
2. The interim finance committee may allocate funds from the contingency fund to local governments for purposes approved by the legislative commission. For purposes of this section, the legislative commission may approve a local government request if:
(a) The local government is a general improvement or other special district and not a county, city, town or school district;
(b) Services provided by the local government are in danger of deteriorating because of financial hardship caused by the imposition of the expenditure limitations of this act; and
(c) The local government has no other resources available to it.

SEC. 17. NRS 354.598 is hereby amended to read as follows:

354.598 1. At the time and place advertised for public hearing, or at any time and place to which the public hearing is from time to time adjourned, the governing body shall hold a public hearing on the tentative budget, at which time interested persons shall be given an opportunity to be heard.

2. At the public hearing, the governing body shall indicate changes, if any, to be made in the tentative budget, and shall adopt a final budget by the favorable votes of a majority of all members of the governing body. The final budget must be adopted on or before May 1 of each

year. Should the governing body fail to adopt a final budget that complies with the requirements of law and the regulations of the department of taxation on or before the required date, the budget adopted and approved by the department of taxation for the current year, adjusted as to content and rate in such manner as the department of taxation may consider necessary, automatically becomes the budget for the ensuing fiscal year. When a budget has been so adopted by default, the governing body may not reconsider the budget without the express approval of the department of taxation. If such a default budget *exceeds the expenditure permitted by section 14 of this act, the Nevada tax commission shall reduce the total expenditure to the permitted amount. If the default budget* creates a combined ad valorem tax rate in excess of the [constitutional limit,] *limit imposed by section 2 of this act,* the Nevada tax commission shall adjust the budget as provided in NRS 361.455.

3. The final budget must be certified by a majority of all members of the governing body and a copy of it, together with an affidavit of proof of publication of the notice of the public hearing, must be transmitted to the Nevada tax commission. If a tentative budget is adopted by default as provided in subsection 2, the clerk of the governing body shall certify the budget and transmit to the Nevada tax commission a copy of the budget, together with an affidavit of proof of the notice of the public hearing, if that notice was published. Certified copies of the final budget must be distributed as determined by the department of taxation.

4. Upon the adoption of the final budget or the amendment of the budget in accordance with NRS 354.606, the several amounts stated in it as proposed expenditures are appropriated for the purposes indicated in the budget.

5. No governing body may adopt any budget which appropriates for any fund any amount in excess of the budget resources of that fund.

SEC. 18. NRS 354.599 is hereby amended to read as follows:

354.599 1. In any year in which the legislature by law increases *or decreases* the revenues of a local government, and [such increase] *that increase or decrease* was not included or anticipated in the local government's final budget as adopted pursuant to NRS 354.598, the governing body of any such local government may, [prior to] *before* July 15 of the budget year, file an amended budget with the department of taxation increasing *or decreasing* its anticipated revenues and expenditures [over] *from* that contained in its final budget to the extent of the actual increase *or decrease* of revenues [made available by such] *resulting from the* legislative action.

2. In any year in which the legislature enacts a law requiring an increase *or decrease* in expenditures of a local government, which [expenditures were] *was* not anticipated or included in its final budget as adopted pursuant to NRS 354.598, the governing body of any such local government may, [prior to] *before* July 15 of the budget year, file an amended budget with the department of taxation providing for an increase *or decrease* in expenditures [over] *from* that contained in its final budget to the extent of the actual amount made necessary by the legislative action.

3. [Such] *The* amended budget, as approved by the department of

Section 15: (continued)

Section 16: Establishes a contingency fund to assist certain local governments experiencing financial hardships caused by the expenditure limitations imposed by this statute.

Section 18: Defines an amendment procedure for local government budgets, when such amendments or revisions become necessary due to unanticipated legislation.

taxation, [shall be] *is* the budget of [such] *the* local government for the current fiscal year.

4. The provisions of this section do not increase the permissible expenditure of a local government from its general fund.

SEC. 19. NRS 354.615 is hereby amended to read as follows:

354.615 *1.* If resources actually available during a budget period exceed those estimated, a local government may [institute] *augment* a budget [augmentation proceeding] in the manner provided below:

[1.] *(a)* If it is desired to augment the appropriations of an appropriation fund, the governing [board] *body* shall, by majority vote of all members of the governing [board,] *body*, adopt a resolution reciting the appropriations to be augmented, and the nature of the unbudgeted resources intended to [implement] *be used for* the augmentation.

[2.] *(b)* Before the adoption of such resolution, the governing [board] *body* shall publish notice of its intention to act thereon in a newspaper of general circulation in the county for at least one publication. No vote may be taken upon such [budget augmentation] *a* resolution until 10 days after the publication of the notice.

[3.] *(c)* If it is desired to augment the budget of any other fund, the governing [board] *body* shall adopt, by majority vote of all members of the governing [board,] *body*, a resolution providing therefor at a regular meeting of the [board.] *body*.

[4.] *2.* A budget augmentation [shall become] *becomes* effective upon delivery to the department of taxation of a certified copy of the resolution providing therefor.

3. A governing body shall not increase the budgeted expenditures from its general fund beyond the amount permitted by section 14 of this act.

SEC. 20. Chapter 387 of NRS is hereby amended by adding thereto a new section which shall read as follows:

1. The amount computed by multiplying the rate levied pursuant to subsection 1 of NRS 387.195 by the average assessed valuation of the school district during the first 3 of the 4 fiscal years preceding the year for which the tax is levied is the base amount from which the permissible amount of revenue to be derived from the tax whose levy is authorized by subsection 1 of NRS 387.195 must be calculated. The average enrollment in the school district during the same 3 years is the base enrollment from which changes in enrollment must be calculated.

2. The board of trustees shall calculate the amount of permissible revenue from the specified tax for a given year as follows:

(a) The base amount is multiplied by the percentage of change in enrollment in the current year from the base enrollment and this product is added to or subtracted from the base amount.

(b) The amount calculated under paragraph (a) is multiplied by 80 percent of the average annual percentage of inflation or deflation for the 60 months preceding the month of November preceding the fiscal year for which the budget is prepared and this product is added to or subtracted from the amount calculated under paragraph (a).

(c) If the amount resulting from the calculations under paragraphs (a) and (b) represents a net increase over the base amount, the board of

trustees may increase its recommended levy accordingly. If the amount represents a net decrease, the board shall decrease its recommended levy accordingly. If the amount is the same as the base amount, the recommended levy must not be increased.

3. The department of taxation shall disapprove any tentative budget of a school district which does not comply with the limitations of subsections 1 and 2.

4. On or before December 1 of each year, the state board of education shall certify the percentage of increase or decrease in enrollment for each school district. For the purposes of this section, "enrollment" means the sum of the particular counts of pupils enrolled in and scheduled to attend programs of instruction in the public schools described in subparagraphs (1) to (4), inclusive, of paragraph (a) of subsection 1 of NRS 387.1233.

5. The Consumer Price Index published by the United States Department of Labor must be used in determining the percentage of inflation or deflation.

SEC. 21. NRS 387.1233 is hereby amended to read as follows:

387.1233 1. Except as otherwise provided in subsection 2, basic support of each school district shall be computed by:

(a) Multiplying the basic support guarantee per pupil established for that school district for that school year by the sum of:

(1) Six-tenths the count of pupils enrolled in the kindergarten department on the last day of the first school month of the school year.

(2) The count of pupils enrolled in grades 1 to 12, inclusive, on the last day of the first school month of the school year.

(3) The count of handicapped minors receiving special education pursuant to the provisions of NRS 388.440 to 388.520, inclusive, on the last day of the first school month of the school year.

(4) The count of children detained in detention homes and juvenile forestry camps receiving instruction pursuant to the provisions of NRS 388.550 to 388.580, inclusive, on the last day of the first school month of the school year.

(5) One-fourth the average daily attendance—highest 3 months of part-time pupils enrolled in classes and taking courses necessary to receive a high school diploma.

(b) Multiplying the number of special education program units maintained and operated by the amount per program established for that school year.

(c) *Multiplying the assessed valuation of property in the school district, as certified by the department of taxation for the concurrent school year, by .003 or a greater or lesser multiplier which corresponds to 80 cents for each $100 of assessed valuation minus the rate levied for the current fiscal year pursuant to subsection 1 of NRS 387.195.*

(d) Adding the amounts computed in paragraphs (a) [and (b).] *, (b) and (c).*

2. If the sum of the counts prescribed in subparagraphs (1) to (4), inclusive, of paragraph (a) of subsection 1 is less than the sum similarly obtained for the immediately preceding school year, the larger sum [shall] *must* be used in computing basic support.

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Section 19: Provides for the amendment of local government budgets if the resources actually available during a budget cycle exceed those estimated for budget purposes at the beginning of that cycle.

Section 20: Defines the assessed valuation base to be used in defining the tax levy for the purpose of establishing the level of permissible revenues and defines the procedure adjusting the allowable revenue base to account for inflation and enrollment increases.

Section 21: Defines the calculation method for the state's basic support requirements for school districts.

3. Pupils who are excused from attendance at examinations or have completed their work in accordance with the rules of the board of trustees [shall] *must* be credited with attendance during that period.

SEC. 21.5. NRS 387.1235 is hereby amended to read as follows:

387.1235 Local funds available are the [sum of:

1. The amount computed by multiplying .007 times the assessed valuation of the school district as certified by the department of taxation for the concurrent school year; and

2. The] proceeds of the local school support tax imposed by chapter 374 of NRS. The department of taxation shall furnish an estimate of [such] *these* proceeds to the state board of education on or before July 15 for the fiscal year then begun, and the state board of education shall adjust the final apportionment of the concurrent school year to reflect any difference between [such] *the* estimate and actual receipts.

SEC. 22. NRS 387.195 is hereby amended to read as follows:

387.195 1. [At the time of levying county taxes, the board of county commissioners of each county shall levy a county school district tax.

2. In 1956 and in each year thereafter when the board of county commissioners levies county taxes:

(a) It shall be mandatory for each board of county commissioners to levy a 70-cent tax on each $100 of assessed valuation of taxable property within the county, which taxes shall be used by the county school district for the maintenance and operation of the public schools within the county school district; and

(b)] When recommended by the board of trustees of the county school district, [in addition to the mandatory levy of taxes provided in paragraph (a),] each board of county commissioners shall levy a tax [of not to exceed 80] :

(a) Not more than 50 cents on each $100 of assessed valuation of taxable property within the county for the support of the public schools within the county school district [.] *or a lesser or greater amount fixed by the state board of examiners if the state board of examiners is directed by law to fix a lesser or greater amount for that fiscal year; or*

(b) The rate which will produce the revenue permitted by section 20 of this act,

whichever is lower.

[(c)] *2.* In addition to [the taxes] any tax levied in accordance with [the provisions of paragraphs (a) and (b),] *subsection 1,* each board of county commissioners shall levy a tax for the payment of interest and redemption of outstanding bonds of the county school district.

SEC. 23. NRS 428.050 is hereby amended to read as follows:

428.050 1. The board of county commissioners of a county shall, at the time provided for the adoption of its final budget, levy an ad valorem tax for the purposes of providing aid and relief to those persons coming within the purview of this chapter. Such levy shall not exceed that adopted for the purposes of this chapter for the fiscal year ending June 30, 1971, [exclusive of that required by NRS 428.370.] *diminished by 11 cents for each $100 of assessed valuation.*

2. No county [shall] *may* expend or contract to expend for purposes of such aid and relief a sum in excess of that provided by the maximum ad valorem levy set forth in subsection 1, together with such outside resources as it may receive from third persons, including, but not limited to, expense reimbursements, grants-in-aid or donations lawfully attributable to the county indigent fund.

3. No interfund transfer, short-term financing procedure or contingency transfer may be made by the board of county commissioners for the purpose of providing resources or appropriations to a county indigent fund in excess of those which may be otherwise lawfully provided pursuant to subsections 1 and 2, except that if the health of the poor is placed in jeopardy and there is a lack of moneys to provide necessary medical care under this chapter, the board of county commissioners shall declare an emergency and provide additional funds for medical care only from whatever resources may be available.

SEC. 24. NRS 428.090 is hereby amended to read as follows:

428.090 1. When any nonresident or any other person who meets the uniform standards of eligibility prescribed by the board of county commissioners falls sick in the county, not having money or property to pay his board, nursing or medical aid, the board of county commissioners of the proper county shall, on complaint being made, give or order to be given such assistance to the poor person as is in accordance with the policies and standards established and approved by the board of county commissioners and within the limits of funds which may be lawfully appropriated for this purpose pursuant to NRS 428.050.

2. If such sick person shall die, then the board of county commissioners shall give or order to be given to such person a decent burial.

3. The board of county commissioners shall make such allowance for board, nursing, medical aid or burial expenses as the board shall deem just and equitable, and order the same to be paid out of the county treasury.

4. The responsibility of the board of county commissioners to provide medical aid or any other type of remedial aid under this section shall be relieved to the extent of the amount of money or the value of services provided by the welfare division of the department of human resources to or for such persons for medical care or any type of remedial care under the provisions of NRS 428.150 to [428.370.] *428.360,* inclusive.

SEC. 25. NRS 428.160 is hereby amended to read as follows:

428.160 As used in NRS 428.150 to [428.370.] *428.360,* inclusive, unless the context otherwise requires, the words and terms defined in NRS 428.170 to 428.250, inclusive, shall have the meanings ascribed to them in such sections.

SEC. 26. NRS 428.170 is hereby amended to read as follows:

428.170 "Applicant" means any individual who has applied for assistance under NRS 428.150 to [428.370.] *428.360,* inclusive.

SEC. 27. NRS 428.250 is hereby amended to read as follows:

428.250 "State aid to the medically indigent" means the payment for part or all of the cost of medical or remedial care rendered on behalf

Section 22: Amends the statutory tax limits for school districts to $0.50/$100 of assessed valuation, or the tax levy which will produce the revenues permitted under Section 20 above, whichever is lower.

of individuals as provided in NRS 428.150 to [428.370,] *428.360,* inclusive, and in the rules and regulations of the division.

SEC. 28. NRS 428.260 is hereby amended to read as follows:

428.260 The department of human resources through the division shall:

1. Administer the plan for assistance to the medically indigent.

2. Serve as the single state agency responsible for carrying out the provisions of NRS 428.150 to [428.370,] *428.360,* inclusive.

3. Cooperate with the Federal Government in matters of mutual concern pertaining to state aid to the medically indigent.

4. Make such rules and regulations and take such action as may be necessary or desirable to carry out the provisions of NRS 428.150 to [428.370,] *428.360,* inclusive, including but not limited to:

(a) The establishment of reasonable standards consistent with the objectives of NRS 428.150 to [428.370,] *428.360,* inclusive, to determine eligibility for medical and connected or other services or for other services; and

(b) The determination of the nature and extent of such assistance.

5. Provide for cooperation between the welfare division and the health division of the department of human resources, and cooperate with the state board for vocational education, for maximum utilization of health and vocational rehabilitation services in the provision of medical or remedial care under NRS 428.150 to [428.370,] *428.360,* inclusive.

SEC. 29. NRS 428.280 is hereby amended to read as follows:

428.280 1. All individuals wishing to make application for assistance under NRS 428.150 to [428.370,] *428.360,* inclusive, shall have the opportunity to do so.

2. The application for assistance shall:

(a) Be made as prescribed by the division; and

(b) Provide such information as may be required by the division.

3. An application need not be made under oath, but any individual making such application who willfully states therein as true any material matter which he knows to be false shall be subject to the penalties for perjury as provided by law.

SEC. 30. NRS 428.330 is hereby amended to read as follows:

428.330 1. Subject to the approval of the board, the state welfare administrator shall establish the rates or fee schedules for medical or remedial care to be provided under NRS 428.150 to [428.370,] *428.360,* inclusive.

2. Such rates or fees shall reflect a reasonable cost for providing medical or remedial care and shall be determined by taking into account legislative appropriations to the division.

3. The division may enter into contracts providing arrangements under which funds available for medical or remedial care under NRS 428.150 to [428.370,] *428.360,* inclusive, shall be administered and disbursed to providers of medical or remedial care in consideration for services rendered and supplies furnished by them in accordance with the provisions of the applicable contract and any schedule of charges or formula for determining payment established pursuant to such contract.

SEC. 31. NRS 428.350 is hereby amended to read as follows:

428.350 1. For the purpose of restricting the use or disclosure of any information concerning applicants for and recipients of assistance to purposes directly connected to the administration of NRS 428.150 to [428.370,] *428.360,* inclusive, by the division, and to provide safeguards therefor, under the applicable provisions of the Social Security Act, the division is authorized, empowered and directed to establish and enforce reasonable rules and regulations governing the custody, use and preservation of records, files and communications filed with the division.

2. Wherever, under provisions of law or regulations of the division, names and addresses of, or information concerning, applicants for and recipients of assistance are furnished to or held by any other agency or department of government, such agency or department of government shall be bound by the rules and regulations of the division concerning the use of such information.

3. Except for purposes directly connected with the administration of NRS 428.150 to [428.370,] *428.360,* inclusive, no person may publish, disclose, use or permit or cause to be published, disclosed or used any confidential information pertaining to a recipient of assistance under the provisions of NRS 428.150 to [428.370,] *428.360,* inclusive.

SEC. 32. NRS 428.360 is hereby amended to read as follows:

428.360 Moneys appropriated by the legislature [,] *and* moneys received from the United States pursuant to Title XIX of the Social Security Act [and moneys received from the counties pursuant to NRS 428.370] shall be used for expenses of administration and provision of medical or remedial care under NRS 428.150 to [428.370,] *428.360,* inclusive.

SEC. 33. NRS 482.180 is hereby amended to read as follows:

482.180 1. The motor vehicle fund is hereby created as an agency fund. All money received or collected by the department must be deposited in the state treasury for credit to the motor vehicle fund.

2. Any check accepted by the department in payment of vehicle privilege tax or any other fee required to be collected under this chapter [shall,] *must,* if it is dishonored upon presentation for payment, be charged back against the motor vehicle fund or the county to which the payment was credited, in the proper proportion.

3. Money for the administration of the provisions of this chapter [shall] *must* be provided by direct legislative appropriation from the state highway fund, upon the presentation of budgets in the manner required by law. Out of the appropriation the department shall pay every item of expense.

4. The department shall certify monthly to the state board of examiners the amount of privilege taxes collected for each county by the department and its agents during the preceding month, and that money [shall] *must* be distributed monthly as provided in subsection 5.

5. The distribution of the privilege tax within a county [shall] *must* be made to local governments, as defined in NRS 354.474, in the same ratio as all property taxes were levied in the county in the previous fiscal year, but the State of Nevada is not entitled to share in that distribution. The amount attributable to the debt service of each school

district [shall] *must* be included in the allocation made to each county government. For the purpose of this subsection, the taxes levied by each local government are the product of its certified valuation, determined pursuant to subsection 2 of NRS 361.405, and its tax rate, established pursuant to NRS 361.455 [.] *, except that the tax rate for school districts is the rate established pursuant to NRS 361.455 for the fiscal year beginning on July 1, 1978.* Local governments, other than incorporated cities, [shall] *are entitled to* receive no distribution if the distribution to the local government is less than $100. Any undistributed money accrues to the county general fund of the county in which the local government is located. The department shall make distributions directly to counties, county school districts and incorporated cities or towns. Distributions for other local governments within a county [shall] *must* be paid to the counties for distribution to the other local governments.

6. Privilege taxes collected on vehicles subject to the provisions of chapter 706 of NRS and engaged in interstate or intercounty operation [shall] *must* be distributed among the counties in the following percentages:

Carson City	1.07 percent	Lincoln	3.12 percent
Churchill	5.21 percent	Lyon	2.90 percent
Clark	22.54 percent	Mineral	2.40 percent
Douglas	2.52 percent	Nye	4.09 percent
Elko	13.31 percent	Pershing	7.00 percent
Esmeralda	2.52 percent	Storey	.19 percent
Eureka	3.10 percent	Washoe	12.24 percent
Humboldt	8.25 percent	White Pine	5.66 percent
Lander	3.88 percent		

The distributions [shall] *must* be allocated among local governments within the respective counties pursuant to the provisions of subsection 5.

7. As commission to the state for collecting the privilege taxes on vehicles subject to the provisions of this chapter and chapter 706 of NRS the department shall retain 6 percent from counties having a population of 100,000 or more as determined by the last preceding national census of the Bureau of the Census of the United States Department of Commerce, and 1 percent from counties having a population of less than 100,000 as determined by that last preceding national census.

8. When the foregoing requirements have been met, and when directed by the department, the state controller shall transfer monthly to the state highway fund any balance in the motor vehicle fund.

SEC. 34. Section 115 of chapter 338, Statutes of Nevada 1979, is hereby amended to read as follows:

Sec. 115. NRS 482.180 is hereby amended to read as follows:

482.180 1. The motor vehicle fund is hereby created as an agency fund. All money received or collected by the department must be deposited in the state treasury for credit to the motor vehicle fund.

2. Any check accepted by the department in payment of vehicle privilege tax or any other fee required to be collected under this chapter must, if it is dishonored upon presentation for payment, be

charged back against the motor vehicle fund or the county to which the payment was credited, in the proper proportion.

3. Money for the administration of the provisions of this chapter must be provided by direct legislative appropriation from the state highway fund, upon the presentation of budgets in the manner required by law. Out of the appropriation the department shall pay every item of expense.

4. The department shall certify monthly to the state board of examiners the amount of privilege taxes collected for each county by the department and its agents during the preceding month, and that money must be distributed monthly as provided in subsection 5.

5. The distribution of the privilege tax within a county must be made to local governments, as defined in NRS 354.474, in the same ratio as all property taxes were levied in the county in the previous fiscal year, but the State of Nevada is not entitled to share in that distribution. The amount attributable to the debt service of each school district must be included in the allocation made to each county government. For the purpose of this subsection, the taxes levied by each local government are the product of its certified valuation, determined pursuant to subsection 2 of NRS 361.405, and its tax rate, established pursuant to NRS 361.455, except that the tax rate for school districts is the rate established pursuant to NRS 361.455 for the fiscal year beginning on July 1, 1978. Local governments, other than incorporated cities, are entitled to receive no distribution if the distribution to the local government is less than $100. Any undistributed money accrues to the county general fund of the county in which the local government is located. The department shall make distributions directly to counties, county school districts and incorporated cities or towns. Distributions for other local governments within a county must be paid to the counties for distribution to the other local governments.

6. Privilege taxes collected on vehicles subject to the provisions of chapter 706 of NRS and engaged in interstate or intercounty operation must be distributed among the counties in the following percentages:

Carson City	1.07 percent	Lincoln	3.12 percent
Churchill	5.21 percent	Lyon	2.90 percent
Clark	22.54 percent	Mineral	2.40 percent
Douglas	2.52 percent	Nye	4.09 percent
Elko	13.31 percent	Pershing	7.00 percent
Esmeralda	2.52 percent	Storey	.19 percent
Eureka	3.10 percent	Washoe	12.24 percent
Humboldt	8.25 percent	White Pine	5.66 percent
Lander	3.88 percent		

The distributions must be allocated among local governments within the respective counties pursuant to the provisions of subsection 5.

7. As commission to the state for collecting the privilege taxes on vehicles subject to the provisions of this chapter and chapter 706 of NRS the department shall retain 6 percent from counties having a population of 100,000 or more [as determined by the

last preceding national census of the Bureau of the Census of the United States Department of Commerce,] and 1 percent from counties having a population of less than 100,000. [as determined by that last preceding national census.]

8. When the foregoing requirements have been met, and when directed by the department, the state controller shall transfer monthly to the state highway fund any balance in the motor vehicle fund.

SEC. 35. NRS 539.6363 is hereby amended to read as follows:

539.6363 1. To levy and collect taxes, the board of directors shall:

(a) Determine in each year the amount of money necessary to be raised by general (ad valorem) taxation, taking into consideration other sources of revenue of the district; and

(b) Fix a rate of levy which, when levied upon every dollar of assessed valuation of taxable property within the district and together with other revenues, will raise the amount required by the district annually to supply funds for paying promptly in full, when due, all interest on and principal of bonds of the district. In the event of accruing defaults or deficiencies, an additional levy may be made as provided in NRS 539.-6364.

2. The board of directors shall certify to the board of county commissioners of each county within the district, or having a portion of its territory within the district, at the same time as fixed by law for certifying thereto tax levies of incorporated cities, the rate so fixed, with directions that at the time and in the manner required by law for levying taxes for county purposes, such board of county commissioners shall levy such tax upon the assessed valuation of all taxable property within the district, in addition to such other taxes as may be levied by such board of county commissioners at the rate so fixed and determined.

3. The board of directors shall levy such general (ad valorem) taxes upon all property in the district which is by law taxable for state, county and municipal purposes, without regard to any statutory tax limitation now or hereafter existing and without limitation as to rate or amount, fully sufficient, after making due allowance for probable delinquencies, to provide for the prompt payment of such bonds as they become due, both principal and interest, but subject to the limitation of section 2 of article 10 of the constitution of the state.

[4. Any such general (ad valorem) tax levy shall enjoy the same priority as provided by NRS 350.600, as from time to time amended, for other taxes levied for the payment of bonded indebtedness over taxes levied for all other purposes where reduction is necessary in order to comply with the limitations of section 2 of article 10 of the constitution of the state.]

SEC. 36. NRS 349.246, 350.600 and 428.370 are hereby repealed.

SEC. 37. 1. For the purpose of preparing budgets for the fiscal year beginning July 1, 1979, the governor shall certify the percentage of increase or decrease in population of each city and county on or before the 5th day after the effective date of this section. Each local government shall, with the approval of the department of taxation,

revise its budget if and to the extent necessary to comply with the provisions of this act.

2. Between the effective date of this section and July 1, 1979, the Nevada tax commission shall revise any individual or combined tax rate previously certified to a board of county commissioners for levy to be collected during the fiscal year 1979-80, if and to the extent necessary to comply with the provisions of this act.

3. Each county auditor, with the assistance of the county assessor as appropriate, shall remove from the tax roll as prepared for collection during the fiscal year 1979-80 all assessments of household goods and furniture used by a single household and owned by a member of that household, or subtract the appropriate amounts if the roll has been extended.

4. The first installment of taxes assessed upon the real property tax roll for collection in 1979-80 is due and payable on the 1st Monday of August 1979.

5. The date for notifying a claimant pursuant to NRS 361.841 is postponed to July 31, 1979, and the date for making a refund to a home renter is postponed to September 15, 1979.

SEC. 38. 1. There is hereby appropriated from the state general fund to the state distributive school fund:

(a) For the fiscal year 1979-80, the sum of $57,546,987.

(b) For the fiscal year 1980-81, the sum of $67,730,448.

(c) If the state board of examiners has set the multiplier used in paragraph (c) of subsection 2 of NRS 387.1233 above .003, the additional sum of $12,240,000 for the fiscal year 1980-81.

The sums appropriated by this section are available for both fiscal years and may be transferred from one fiscal year to another with the approval of the interim finance committee.

2. For the purposes of this section, the relevant taxes are:

(a) The tax accrued pursuant to the Sales and Use Tax Act. The increase in its yield is determined by comparing the total accruals for the three calendar quarters beginning July 1, 1979, and ending March 31, 1980, with the total accruals for the three calendar quarters beginning July 1, 1978, and ending March 31, 1979.

(b) The quarterly state license fee based upon gross revenue from gaming, collected pursuant to NRS 463.370. The increase in its yield is determined by comparing the total collections for the three calendar quarters beginning July 1, 1979, and ending March 31, 1980, with the total collections for the three calendar quarters beginning July 1, 1978, and ending March 31, 1979.

3. For the fiscal year 1980-81, if the combined increase in yield of the relevant taxes is in one of the ranges tabulated below, the state board of examiners shall fix a greater or lesser multiplier to be used in the calculation required by paragraph (c) of subsection 1 of NRS 387.-1233 and the corresponding lesser or greater amount of the optional school levy which may be made under subsection 1 of NRS 387.195 and a greater or lesser combined tax rate as specified in section 2 of this act, as specified below for the respective ranges:

Section 38: Defines the procedure whereby school districts can assess an additional $0.30/$100 of assessed valuation (increasing the school district's maximum levy to $0.80/$100, and the county's total to $3.94/$100) if the growth in the state's revenue sources which are to be used to support school districts is below a presribed level, and vice versa

Equal to or greater than	But less than	Multiplier	School levy (cents per $100)	Maximum combined rate
.....	2 percent	.0000	$0.80	$3.94
2 percent	3 percent	.0001	.79	3.93
3 percent	4 percent	.0004	.76	3.90
4 percent	5 percent	.0007	.73	3.87
5 percent	6 percent	.0010	.70	3.84
6 percent	7 percent	.0013	.67	3.81
7 percent	8 percent	.0017	.63	3.77
8 percent	9 percent	.0020	.60	3.74
9 percent	10 percent	.0023	.57	3.71
10 percent	12 percent	.0030	.50	3.64
12 percent	13 percent	.0032	.48	3.62
13 percent	14 percent	.0035	.45	3.59
14 percent	15 percent	.0038	.42	3.56
15 percent	16 percent	.0042	.38	3.52
16 percent	17 percent	.0045	.35	3.49
17 percent	.....	.0048	.32	3.46

4. Before fixing a multiplier and the corresponding amount of the school levy, the state board of examiners shall determine that there is sufficient money in the state distributive school fund to permit the allocation of the additional amount required by that multiplier. In making this determination, the board shall review enrollments for 1979-80, estimated enrollments for 1980-81, information on property assessments for the 1980-81 tax year, and the anticipated level of receipts in the state distributive school fund from revenue sharing, slot machine tax credit, federal land leasing and local school support tax from out-of-state businesses. If there is not sufficient money in the state distributive school fund to allow the multiplier first proposed, the multiplier must be reduced to the highest multiplier for which there is determined to be sufficient money, and the school levy must be set to correspond.

SEC. 39. 1. This section and section 37 of this act shall become effective upon passage and approval.

2. Sections 1 to 36, inclusive, of this act shall become effective upon passage and approval for the purposes of preparing budgets and calculating levies.

3. For all other purposes:

(a) Sections 4, 12 and 17 of this act shall become effective at 12:01 a.m. on July 1, 1979;

(b) Sections 33 and 34 of this act shall become effective at 12:02 a.m. on July 1, 1979; and

(c) The remaining sections of this act shall become effective on July 1, 1979.

4. Sections 1 through 36, inclusive, of this act expire by limitation on June 30, 1981, if before that date the constitution of the State of Nevada is amended to limit the amount of general (ad valorem) taxes on real property to $1 for each $100 of full cash value, or to any lesser amount.

Section 38: (continued)

Section 39: Prescribes the effective data of the various provisions of this statute, the expiration clause for Sections 1-36, inclusive, if a constitutional referendum on tax limitations is passes by the Nevada electorate.

LOCAL GOVERNMENT SPENDING LIMITATION

(other than School Districts)

Schedule G (Rev. 9/79)

I. BASE - FY 1978/79 $_____

(From SKEDG, Form (LCB 19) submitted in June 1979 - if modified by Legislative Commission, Nevada Tax Commission or correction of original base calculation, submit supporting documents.)

II. FACTORS AFFECTING BASE:

(1) Population Factor:

(a)	Base		$_____
(b)	Multiplied by population change	x	_____%
(c)	Equals Population change adjustment	=	$_____
(d)	Plus Base	+	$_____
(e)	Equals 1st Increment	=	$_____

(2) Inflation Factor:

(a)	1st Increment		$_____
(b)	Multiplied by CPI Factor (2 x .07571)	x	.15142 %*
(c)	equals Inflation Change Adjustment	=	$_____
(d)	Plus 1st Increment	+	$_____
(e)	Equals FY 1980/81 Expenditure Cap		$_____

*Computed by Department of Taxation - 80 percent of average annual percent of inflation for 60 months preceding November 1979 multiplied by 2 (the number of years from July 1, 1978 to July 1, 1980.)

III. FY 1980/81 REVISED FINAL BUDGET:

Title of Fund	Total Budget (A)	Ending Fund Balance (B)	Federal Monies (C)	Other Exclusions (D)	Col A Minus Col B, C & D (E)
_____	$_____	$_____	$_____	$_____	$_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total FY 1980/81	$_____	$_____	$_____	$_____	$_____ **

**Cannot exceed Expenditure "CAP" in II(2).

SCHEDULE G

COMPUTATION OF LOCAL GOVERNMENT SPENDING LIMITATION (OTHER THAN SCHOOL DISTRICTS)

Name of Entity _____ BUDGET FOR FISCAL YEAR _____

Person to Contact _____ Telephone _____

Address _____ Page _____ of _____

LGB 19

INSTRUCTIONS FOR COMPUTING LOCAL GOVERNMENT
(OTHER THAN SCHOOL DISTRICT) SPENDING LIMITATIONS

1. Sec. I. Unless completed by the Department INSERT BASE (FY 78-79) from Schedule G, Sec. I submitted to the Department of Taxation in June 1979. If your base has been modified incident to an appeal to the Legislative Commission, Nevada Tax Commission or correction of original base calculation, submit supporting data.

2. Sec. II. FACTORS AFFECTING BASE:
(1) Population Change: Insert the Base figure on line (a). Determine the percentage change (plus or minus) from the Governor's Certification of December 1, 1979 prepared by the State Planning Coordinator's Office (1979 population: 1977 population) for your County or City and enter on line (b). Multiply line (a) by line (b) and insert the result on line (c). ADD line (c) to the BASE and insert result on line (e), the first Increment. NOTE: Local Governments other than counties and cities MUST use the COUNTY population changes in their calculations. For those Local Governments whose boundaries cross county lines, the figure for the county in which the largest fraction of their total population resides must be used. Any appeal to the Nevada Tax Commission for a deviation in population figures must be supported by sufficient statistical information to justify a revision (i.e.: electrical hookups, water connections, telephone installations, building permits, etc.). Appeals must be submitted to the Department of Taxation no later than January 31, 1980.

(2) Inflation Factor. Insert the first Increment figure from Section II 1 (e) on line 2 (a). Multiply line (a) by the inflation factor indicated on line 2 (b). This factor was developed by the Department based on the statutory formula i.e.: 80 percent of the average annual percentage of inflation for the 60 months preceding November 1979 and multiplied by 2 for the number of years between July 1, 1980 and July 1, 1978. The result of the calculation is inserted on line (c). Line (c) is then added to the first Increment previously developed to arrive at the FY 80/81 expenditure cap and this figure is inserted in the block on line 2 (e).

3. Sec. III. Indicate whether the calculations are for the tentative or final budget by crossing out the identification that does not apply. Calculations are then:

(a) In column A list the total appropriations from column 7 on page 2 of LGB-02.

(b) In column B list the ending balances shown on the appropriate Schedule B. Note that such ending balances must not exceed 8.3 percent of the column A figure less any capital outlay without explanation satisfactory to the Department per Local Government Regulation 13.

(c) In column C list all federal funds anticipated in FY 80-81. These must be separately identified on a supplemental Scehdule G-1.

(d) In column D list revenues accumulated during several years for a specified purpose and, in the case of hospitals, fair and recreation boards and convention authorities or other nonappropriation funds, all expenditures EXCEPT thos equalling revenues from ad valorem taxes and license fees. Any other deduction MUST be approved in advance by the Department of Taxation. All exclusions in column D MUST be separately identified on a supplemental schedule G-1.

(e) The total of column E cannot exceed the expenditure cap calculated in Section II.

4. Submission Dates: Tentative budgets submitted for FY 80-81 MUST be received by the Department of Taxation (along with a completed copy of Schedule G and G-1) no later than 5:00 p.m. on March 15, 1980.

5. Exempted Entities: Entities whose appropriations are not included in the spending limitations must submit a letter so advising the Department of Taxation with the submission of their tentative budgets.

6. Final Budgets: Any revision to the tentative budgets in the final budget will require a resubmission of Schedule G and G-1. Final budgets are due in the Department of Taxation no later than May 2, 1980. If the combined rate exceeds the statutory limit, the provisions of NRS 361.455 are necessary to resolve the rate decreases. The Tax Commission will meet on Monday, May 26, 1980 to certify tax rates.

COMPUTATION OF SCHOOL DISTRICT SPENDING LIMITATIONS

County: _____ Date: _____

Person preparing form: _____ Phone: _____

Address: _____

I. ASSESSED VALUATION

1976-77 $_____

1977-78 $_____

1978-79 $_____

TOTAL (A)$_____

Line (A) 3 ÷ = (B)$_____
(average assessed valuation)

Line (B) x .005 = (C)$_____
BASE DOLLAR AMOUNT

II. PUPIL ENROLLMENT

1976-77 _____

1977-78 _____

1978-79 _____

TOTAL (D) _____

Line (D) ÷ 3 = (E) _____
(base enrollment)

Current enrollment (F) _____

Line (F) _____ ÷ Line (E) _____ = (G) _____%
(increase or decrease)

III. CALCULATIONS

1) Line (C) $_____ x Line (G) _____% = (H) $_____
(First increment)

2) Line (H) $_____ x 1.07571 (CPI) = (I) $_____
(Second increment)

3) Line (I) $_____ ÷ _____ = (J) $_____
(1979-1980 assessed valuation) Millage

4) Line (J) $_____ x 100 = (K) $_____

Line (K) IS THE MAXIMUM TAX LEVY FOR FISCAL YEAR 1980-81 and may not exceed 50 cents.

LGB 41 - Schedule H

INSTRUCTIONS FOR COMPUTING SCHOOL DISTRICT SPENDING LIMITATION FORM

1. Applies only to General Fund revenue from the ad valorem tax. Debt service is not affected.

2. Section I computes base dollar amount from which fiscal year 1980-81 maximum tax levy is calculated. The assessed valuations to be utilized are those used for calculation of the subsequent fiscal year tax rate, i.e.: the 1976-77 assessed valuation was used for the fiscal year 1977-78 final budget. The total of the 1976-77, 1977-78 and 1978-79 assessed valuations is divided by three (3) to arrive at the average assessed valuation. That figure is then multiplied by .005 (equal to a 50 cent tax levy) to arrive at the base dollar amount.

3. Section II establishes a base enrollment figure on which to calculate the enrollment change for use in developing the fiscal year 1980-81 tax levy. The enrollment figures are provided by the Department of Education based on NRS 387.1233.1 (a) subsections (1) through (4). The enrollment figures used in developing the base are those of the last day of the first school month of the school years 1976-77, 1977-78 and 1978-79. The total of these enrollments is divided by three (3) to arrive at the base enrollment. The current enrollment figure (Line F) is the enrollment on the last day of the first school month of the school year 1979-80. This figure is divided by the base enrollment figure to arrive at a percentage factor of increase or decrease.

4. Section III develops the dollar amount and the maximum tax levy for use in the fiscal year 1980-81 budget. The base dollar amount from Section I is multiplied by the enrollment percentage change from Section II to arrive at the first increment of spending authority (Line H). The percentage figure can result in either an increase or a decrease in the base dollar amount. This dollar figure is then multiplied by the inflation factor to arrive at the maximum dollars that could be raised from ad valorem revenues (second increment). The inflation factor is 80 percent of the average annual percentage of inflation or deflation for the 60 months preceding the month of November preceding the fiscal year for which the budget is prepared. This figure is developed by the Dept. of Taxation based on the statutory formula. The result of this calculation may then be divided by the current (i.e. fiscal year 1979-80) assessed valuation (times 100) to arrive at the maximum anticipated tax levy. This figure may not exceed 50 cents and the dollar figure on Line I must be adjusted downward should the anticipated tax levy exceed 50 cents.

5. Tentative budgets, together with Schedule H, must be submitted to the Department of Taxation no later than March 15, 1980. Final budgets must be submitted no later than May 1, 1980 unless the combined tax rate exceeds statutory limitations and the provisions of NRS 361.455 for resolution of the rates is necessary.

6. The final ad valorem tax levy may be adjusted upwards or downwards depending on the action of the State Board of Examiners incident to revenue comparisons as mandated by Section 38 of SB 204 (Chapter 593 of the Advance Sheets). However, any such change will not affect the total school district budget or spending limitation but merely the source of funding.

CHAPTER 7

GLOSSARY

Baseline	Future conditions as they would exist in the absence of the proposed action
Basic employment	Employment that responds to changes in demand outside the local economy and which supports additional employment, i.e., the non-basic or service sector employment
Cohort	A group, usually used in the context of a group of the population of the same age or sex
Components of change	Factors describing the causes of population increases or decreases
Consumer Price Index	A statistical measure of changes in the prices of goods and services bought by urban wage earners and clerical workers, including families and single persons
Economic base	The economic base of an economy refers to the total of its basic employment and the sectors in which that employment occurs
Economy	The structure of an area dealing with the production, distribution, and consumption of goods and services
Employed	Those individuals who during a given period worked as paid employees or in their own business, or who were temporarily absent from work because of illness, vacation, labor disputes, etc.
EMT's	Emergency Medical Technicians; persons trained and cer fied to provide emergency medical treatment necessary to sustain life
General obligation bonds	A bond issued by some governmental jurisdiction backed by the full taxing authority of that government. Interest payments and repayments of principal are taken from general funds.
Impacts	The final or ultimate change in an environmental element or system; this change is determined by tracing all cause-effect paths generated by the proposed action
Labor force	All persons 16 years of age or over within a specified geographic area who are either employed or unemployed

CHAPTER 8

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